

05/24/2013 -----NSR IMS - PROJECT RECORD -----

PROJECT#: 183376 PERMIT#: 7711A STATUS: PENDING
RECEIVED: 09/28/2012 PROJTYPE: AMEND AUTHTYPE: CONSTRUCT
RENEWAL: 10/21/2014

DISP CODE:

ISSUED D

C
6/14/13

PROJECT ADMIN NAME: ASPHALT ROOFING PRODUCTION FACILITY
PROJECT TECH NAME: ASPHALT ROOFING PRODUCTION FACILITY

Assigned Team:MECH/AG TEAM**STAFF ASSIGNED TO PROJECT:**

WILBORN , JESSIE - REVIEWR1_2 - AP INITIAL REVIEW
STANFORD , JOEL - REVIEW ENG - MECH/AG TEAM

CUSTOMER INFORMATION (OWNER/OPERATOR DATA)

ISSUED TO: BUILDING MATERIALS CORPORATION OF AMERICA

COMPANY NAME: Building Materials Corporation of America

CUSTOMER REFERENCE NUMBER: CN602717464

REGULATED ENTITY/SITE INFORMATION

REGULATED ENTITY NUMBER: RN100788959

ACCOUNT: DB0378S

PERMIT NAME: GAF MATERIALS

REGULATED ENTITY LOCATION: 2600 SINGLETON BLVD

REGION 04 - DFW METROPLEX

NEAR CITY: DALLAS

COUNTY: DALLAS

CONTACT DATA

CONTACT NAME: MR BRUCE
DAHLGREN

CONTACT ROLE: RESPONSIBLE OFFICIAL

JOB TITLE: PLANT MANAGER

ORGANIZATION: BUILDING MATERIALS CORPORATION OF
AMERICA

MAILING ADDRESS: 2600 SINGLETON BLVD , DALLAS, TX, 75212-3738

PHONE: (214) 637-8970 Ext: 0

FAX: (214) 637-5202 Ext: 0

EMAIL: BDAHLGREN@GAF.COM

RECEIVED**AUG 16 2013**TCEQ
CENTRAL FILE ROOM

CONTACT NAME: MR DURWIN
FARLOUGH

CONTACT ROLE: TECHNICAL CONTACT

JOB TITLE: PROJECT ENGINEER

ORGANIZATION: BUILDING MATERIALS CORPORATION OF
AMERICA

MAILING ADDRESS: 2600 SINGLETON BLVD , DALLAS, TX, 75212-3738

PHONE: (214) 637-8977 Ext: 0
FAX: (214) 637-5202 Ext: 0
EMAIL:DFARLOUGH@GAF.COM

PROJECT NOTES:

10/01/2012 DFC 10/01/2012
10/02/2012 SR DOCUMENT NO 441181, LEGLTRS DOCUMENT NO 448182.

PERMIT NOTES:

12/09/2009 INCORPORATE STANDARD PERMIT NO. 91414 AT NEXT AMEND. OR RENEWAL

FEE:

Reference	Fee Receipt Number	Amount	Fee Receipt Date	Fee Payment Type
161612	PI00116151	900.00	09/21/2012	ePAY

TRACKING ELEMENTS:

TE Name	Start Date	Complete Date
APIRT RECEIVED PROJECT (DATE)	09/28/2012	
PHONE CONFERENCE (DATE)	10/01/2012	
APIRT TRANSFERRED PROJECT TO TECHNICAL STAFF (DATE)	10/02/2012	
PROJECT RECEIVED BY ENGINEER (DATE)	10/04/2012	
DRAFT PERMIT RFC SENT TO REGION (DATE)	01/14/2013	
EMISSIONS MODELING CYCLE DONE BY APPLICANT	01/14/2013	03/18/2013
WORKING DRAFT PERMIT REVIEW CYCLE	01/14/2013	05/24/2013
MODELING AUDIT CYCLE	02/14/2013	03/18/2013
FINAL PACKAGE TO TEAM LEADER OR SUPERVISOR FOR REVIEW (DATE)	05/24/2013	
FINAL PACKAGE TO SECTION MANAGER FOR REVIEW (DATE)		

Permit Unit Type:

PROJECT ATTRIBUTES:

Attributes	Value
MSS- 101.222(H)(1)	F

**Permit Amendment
Source Analysis & Technical Review**

Company	Building Materials Corporation of America	Permit Number	7711A
City	Dallas	Project Number	183376
County	Dallas	Account Number	DB-0378-S
Project Type	Amend	Regulated Entity Number	RN100788959
Project Reviewer	Mr. Joel Stanford	Customer Reference Number	CN602717464
Site Name	Asphalt Roofing Production Facility		

Project Overview

The company has proposed an amendment of their permit in order to authorize the replacement of the burner associated with the Standby Boiler (Emission Point Number [EPN] BLR5) with a larger unit and to increase its annual hours of operation from to 2,280 hours per year to allow for continual operation (8,760 hours per year). Conditions relating to Compliance Assurance Monitoring and requiring the use of baghouses or dust collectors on some sources have also been included. Special Conditions relating to opacity and visible emissions have been updated with current language.

The company also requests the inclusion of the representation of startup and shutdown emissions. Language in Special Condition number one and a new footnote (7) on the Maximum Allowable Emission Rates Table have been added to the permit. Maintenance activities will be authorized either under Permit by Rule or claimed under 30 Texas Administrative Code § 116.119, De Minimis Facilities or Sources. Emissions from planned startup and shutdown activities will be authorized by this permit.

Emission Summary

Air Contaminant	Current Allowable Emission Rates (tpy)	Proposed Allowable Emission Rates (tpy)	Change in Allowable Emission Rates (tpy)
PM	103.84	104.47	+0.63
PM ₁₀	103.84	104.47	+0.63
PM _{2.5}	--	104.47	*104.47
VOC	47.48	47.91	+0.43
NO _x	17.32	20.01	+2.69
CO	60.91	67.74	+6.83
SO ₂	128.67	128.7	+0.03

*The proposed Maximum Allowable Emission Rates Table (MAERT) includes PM_{2.5} emissions that were evaluated and authorized in a past permitting action but were not previously included on the MAERT.

Public Notice Information - 30 TAC Chapter 39 Rules

Rule Citation	Requirement	
39.403	Is Public Notice Required?	No
	If no, give reason:	The proposed emission increases are below public notice thresholds.

Construction Permit & Amendment Requirements - 30 TAC Chapter 116 Rules

Rule Citation	Requirement	
116.111(a)(2)(G)	Is the facility expected to perform as represented in the application?	Yes
116.111(a)(2)(A)(i)	Are emissions from this facility expected to comply with all TCEQ air quality Rules & Regulations, and the intent of the Texas Clean Air Act?	Yes
116.111(a)(2)(B)	Emissions will be measured using the following method:	Recordkeeping

Permit Amendment Source Analysis & Technical Review

Permit No. 7711A
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Regulated Entity No. RN100788959

Rule Citation	Requirement	
	Comments on emission verification:	Records are required to indicate proper operation of control equipment, throughputs, and production rates.
116.111(a)(2)(D)	Subject to NSPS? Subparts A, Dc, & UU	Yes
116.111(a)(2)(E)	Subject to NESHAP?	No NESHAP applies due to the facility not emitting any air contaminants regulated under 40 CFR 61.
116.111(a)(2)(F)	Subject to NESHAP (MACT) for source categories? Subparts A & AAAAAAA	Yes
116.111(a)(2)(H)	Is nonattainment review required?	No
	Is the site located in a nonattainment area?	Yes
	Is the site a federal major source for a nonattainment pollutant?	Yes
	Is the project a federal major source for a nonattainment pollutant by itself?	No
	Is the project a federal major modification for a nonattainment pollutant?	No
116.111(a)(2)(I)	Is PSD applicable?	No
	Is the site a federal major source (100/250 tons/yr)?	No
	Is the project a federal major source by itself?	No
	Is the project a federal major modification?	No
116.111(a)(2)(L)	Is Mass Emissions Cap and Trade applicable to the new or modified facilities?	No
	If yes, did the proposed facility, group of facilities, or account obtain allowances to operate:	No
116.140 - 141	Permit Fee: \$900.00	Fee certification: PI00116151

Title V Applicability - 30 TAC Chapter 122 Rules

Rule Citation	Requirement	
122.10(13)(A)	Is the site a major source under FCAA Section 112(b)?	No
	Does the site emit 10 tons or more of any single HAP?	No
	Does the site emit 25 tons or more of a combination?	No
122.10(13)(C)	Does the site emit 100 tons or more of any air pollutant?	Yes. The facility operates under Title V Operating Permit Number 0-2771 and will revise its SOP as necessary
122.10(13)(D)	Is the site a non-attainment major source?	No
122.602	Periodic Monitoring (PM) applicability: The company is required to monitor temperature of the incinerator with an averaging period of one hour, and to monitor visible emissions once per week of blowing stills, of storage tanks, and of mineral handling and storage facilities.	
122.604	Compliance Assurance Monitoring (CAM) applicability: CAM applies to both the Thermal Oxidizer (direct-flame incinerator) (EPN 8/8A) and the Coalescing Filter Mist Elimination Systems (EPN CFL/34). CAM is achieved through following NESHAP (MACT) AAAAAAA requirements. Temperature monitoring as required by the MACT is required by Special Condition 13 at a 1 hour interval as opposed to the 3 hours interval specified in AAAAAAA. The Coalescing Filter Mist Elimination System is required to follow the operating range as specified in 40 Code of Federal Regulations (40 CFR) § 63.11562(a)(2) and (b)(3). The 3-hour average pressure drop across the device is required to fall within the approved operating range established as specified in 40 CFR § 63.11562(a)(2) and (b)(3).	

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Regulated Entity No. RN100788959

Request for Comments

Received From	Program/Area Name	Reviewed By	Comments
Region:	4	Ms. Marilyn Fitzner	No Objections
City:	Dallas	Mr. Brian Cunningham	No Objections

Process/Project Description

The plant manufactures asphalt shingles for the roofing industry. A dry, nonwoven fiberglass mat is fed into the roofing machine from an unwind stand. The fiberglass is carried through the coating section where coating asphalt mixed with a stabilizer (limestone) is applied to both surfaces of the mat. The coating operation is followed by the surfacing section. Ceramic colored granules are blended and dropped in proper sequence onto the coated web and embedded. The back surface of the sheet is sprinkled with sand to prevent it from adhering to rolls and itself in the finished package. The hot sheet, with a mineralized surface, then goes into the cooling section of the machine. Cooling is accomplished by passing the web over a series of water-cooled drums, through water mist sprays and between air jets. It is then accumulated in the looper section of the machine to provide surge capacity required prior to cutting. Self-seal striping dots are then applied and the sheet is cut into shingles and automatically packaged. The boiler accepts the thermal oxidizer exhaust gas for preheating recovery and fires as necessary to meet the steam needs of the plant.

Pollution Prevention, Sources, Controls and BACT- [30 TAC 116.111(a)(2)(C)]

Emissions at the facility are due to heaters, the boiler and the standby boiler, all storage and process tanks, blowing stills, and all loading and unloading operations associated with trucks and railcars.

The Standby Boiler affected by the amendment (EPN BLR5) will be rated at 19 Million British Thermal units/hour (MMBtu/hr) and does not require any additional control technologies or emission limits. The unit utilizes a low NO_x burner (with a manufacturer represented 30 parts per million rating) and will meet BACT.

Emissions from the blowing stills, loading racks, and storage tanks vent to a thermal oxidizer (direct-flame incinerator). The thermal incinerator has a destruction efficiency of 95 percent for PM/PM₁₀, H₂S, CO, and VOC.

Emissions from stabilizer storage, stabilizer heaters, the line 1 stabilizer use bin, and sand application are vented to baghouses. Emissions from the line 1 surfacing section are vented to dust collectors. These control units have a capture efficiency of at least 99%.

No abatement device or method was listed for capture and reduction of SO₂ from the listed facilities at the site. All permitted facilities will meet BACT criteria for asphalt processing and asphalt roofing manufacturing facilities.

Startup and shutdown emissions are virtually indistinguishable from production emissions. Although there may be minor emissions associated with startup and shutdown, emission factors used to quantify production emissions are considered to have enough conservatism to include any incidental increases that may be attributed to startup and shutdown. In addition, emissions from planned startup and shutdown of combustion units should not result in any quantifiable hourly emissions change for products of combustion. Although there may be transitional and incidental spikes before units stabilize during startups (5 to 15 minutes), overall products of combustion are expected to be within hourly range limits for normal loads during production operations.

Permit Amendment Source Analysis & Technical Review

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Regulated Entity No. RN100788959

Impacts Evaluation - 30 TAC 116.111(a)(2)(J)

Was modeling conducted?	Yes	Type of Modeling:	AERMOD
Will GLC of any air contaminant cause violation of NAAQS?	No		
Is this a sensitive location with respect to nuisance?	Moderate		
[§116.111(a)(2)(A)(ii)] Is the site within 3000 feet of any school?	Yes		
Additional site/land use information:			
According to a site review by the regional office, the surrounding area is a mix of residential and industrial. The closest receptor is a business located 250 feet away. The closest property line is 200 feet away. There are three schools nearby, a middle school located 1,600 feet away, a high school 2,500 feet away, and an elementary school 2,900 feet away.			

Summary of Modeling Results

Modeling was performed for the project-related increases of criteria pollutants. The results were reviewed by the TCEQ Air Dispersion Modeling Team and determined to be acceptable. The results were projected to be below de-minimis thresholds and are as follows:

Table 1. Project-Related Modeling Results for State Property Line

Pollutant	Averaging Time	GLCmax (µg/m³)	De Minimis (µg/m³)
SO ₂	1-hr	0.5	20.4

Table 2. Modeling Results for Minor NSR De Minimis

Pollutant	Averaging Time	GLCmax (µg/m³)	De Minimis (µg/m³)
SO ₂	1-hr	0.5	7.8
SO ₂	3-hr	0.3	25
SO ₂	24-hr	0.1	5
SO ₂	Annual	0.01	1
PM ₁₀	24-hr	1.17	5
PM _{2.5}	24-hr	1.17	1.2
PM _{2.5}	Annual	0.22	0.3
NO ₂	1-hr	1.7	7.5
NO ₂	Annual	0.7	1
CO	1-hr	57	2000
CO	8-hr	26	500

**Permit Amendment
Source Analysis & Technical Review**

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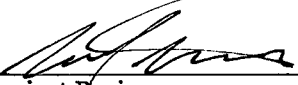
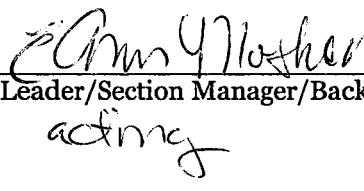
Regulated Entity No. RN100788959

The GLCmax are the maximum predicted concentrations associated with one year of meteorological data.

The justification for selecting the EPA's interim 1-hr NO₂ and 1-hr SO₂ De Minimis levels was based on the assumptions underlying EPA's development of the 1-hr NO₂ and 1-hr SO₂ De Minimis levels. As explained in EPA guidance memoranda, the EPA believes it is reasonable as an interim approach to use a De Minimis Level that represents 4% of the 1-hr NO₂ and 1-hr SO₂ NAAQS.

Permit Concurrence and Related Authorization Actions

Is the applicant in agreement with special conditions?	Yes, 05/24/13
Company representative(s):	Ms. Latha Kambham
Contacted Via:	E-mail
Date of contact:	01/14/13
Other permit(s) or permits by rule affected by this action:	No

	6/4/13		6/5/13
Project Reviewer	Date	Team Leader/Section Manager/Backup	Date

acting

Bryan W. Shaw, Ph.D., *Chairman*
Carlos Rubinstein, *Commissioner*
Toby Baker, *Commissioner*
Zak Covar, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Protecting Texas by Reducing and Preventing Pollution

June 14, 2013

MR BRUCE DAHLGREN
PLANT MANAGER
BUILDING MATERIALS CORPORATION OF AMERICA
2600 SINGLETON BLVD
DALLAS TX 75212-3738

Re: Permit Amendment Application
Permit Number: 7711A
Asphalt Roofing Production Facility
Dallas, Dallas County
Regulated Entity Number: RN100788959
Customer Reference Number: CN602717464
Account Number: DB-0378-S

Dear Mr. Dahlgren:

This is in response to your letter received September 28, 2012 and your Form PI-1 (General Application for Air Preconstruction Permits and Amendments) concerning the proposed amendment to Permit Number 7711A. We understand that you propose to replace a boiler burner with a larger unit and increase its annual hours of operation. We further understand that you are requesting that your permit reflect the review of maintenance, startup, and shutdown emissions. Also, this will acknowledge that your application for the above-referenced amendment is technically complete as of May 24, 2013.

As indicated in Title 30 Texas Administrative Code § 116.116(b) and § 116.160 [30 TAC § 116.116(b) and § 116.160], and based on our review, Permit Number 7711A is hereby amended. This information will be incorporated into the existing permit file. Enclosed are revised special conditions pages, a maximum allowable emission rates (MAERT) table, and a new permit face to replace those currently attached to your permit. We appreciate your careful review of the special conditions of the permit and assuring that all requirements are consistently met.

Planned startup and shutdown for the sources identified on the MAERT have been reviewed and included in the MAERT. Maintenance activities are not authorized by this permit and will need separate authorization, unless the activity can meet the conditions of 30 TAC § 116.119.

Mr. Bruce Dahlgren
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June 14, 2013

Re: Permit Number: 7711A

This amendment will be automatically void upon the occurrence of any of the following, as indicated in 30 TAC § 116.120(a):

1. Failure to begin construction of the changes authorized by this amendment within 18 months from the date of this authorization.
2. Discontinuance of construction of the changes authorized by this amendment for a period of 18 consecutive months or more.
3. Failure to complete the changes authorized by this amendment within a reasonable time.

Upon request, the executive director may grant extensions as allowed in 30 TAC § 116.120(b).

You may file a **motion to overturn** with the Chief Clerk. A motion to overturn is a request for the commission to review the executive director's decision. Any motion must explain why the commission should review the executive director's decision. According to 30 TAC § 50.139, an action by the executive director is not affected by a motion to overturn filed under this section unless expressly ordered by the commission.

A motion to overturn must be received by the Chief Clerk within 23 days after the date of this letter. An original and 11 copies of a motion must be filed with the Chief Clerk in person, or by mail to the Chief Clerk's address on the attached mailing list. On the same day the motion is transmitted to the Chief Clerk, please provide copies to the applicant, the executive director's attorney, and the Public Interest Counsel at the addresses listed on the attached mailing list. If a motion to overturn is not acted on by the commission within 45 days after the date of this letter, then the motion shall be deemed overruled.

You may also request **judicial review** of the executive director's approval. According to Texas Health and Safety Code § 382.032, a person affected by the executive director's approval must file a petition appealing the executive director's approval in Travis County district court within 30 days after the **effective date of the approval**. Even if you request judicial review, you still must exhaust your administrative remedies, which includes filing a motion to overturn in accordance with the previous paragraphs.

Your cooperation in this matter is appreciated. If you need further information or have any questions, please contact Mr. Joel Stanford at (512) 239-0270 or write to the Texas Commission on Environmental Quality, Office of Air, Air Permits Division, MC-163, P.O. Box 13087, Austin, Texas 78711-3087.

Mr. Bruce Dahlgren

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June 14, 2013

Re: Permit Number: 7711A

This action is taken under authority delegated by the Executive Director of the TCEQ.

Sincerely,

A handwritten signature in cursive script, appearing to read "Michael Wilson".

Michael Wilson, P.E., Director
Air Permits Division
Office of Air
Texas Commission on Environmental Quality

MPW/js

Enclosures

cc: Ms. Latha Kambham, Ph.D, Trinity Consultants, Dallas
Section Manager, Air Pollution Control Program, City of Dallas Environmental and Health
Services, Dallas
Air Section Manager, Region 4 - Fort Worth

Project Number: 183376



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT



A Permit Is Hereby Issued To
Building Materials Corporation of America
Authorizing the Construction and Operation of
Asphalt Roofing Production Facility
Located at Dallas, Dallas County, Texas
Latitude 32° 46' 40" Longitude -96° 51' 48"

Permit: 7711A

Amendment Date : June 14, 2013

Renewal Date: October 21, 2014


For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

Special Conditions

Permit Number 7711A

Emission Limitations

1. This permit authorizes those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and those sources are limited to the emission rates and other conditions specified in the table. In addition, this permit authorizes all emissions from planned startup and shutdown activities associated with facilities or groups of facilities that are authorized by this permit. **(06/13)**

Fuel Specifications

2. Fuel for the facilities shall be pipeline-quality, sweet natural gas. Use of any other fuel shall require prior written approval of the Executive Director of the Texas Commission on Environmental Quality (TCEQ). **(08/10)**
3. Upon request by the Executive Director of the TCEQ, the TCEQ Regional Director, or any local air pollution control program having jurisdiction, the holder of this permit shall provide a sample and/or an analysis of the fuel utilized in these facilities or shall allow air pollution control program representatives to obtain a sample for analysis. **(08/10)**

Federal Applicability

4. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources in Title 40 Code of Federal Regulations (40 CFR) Part 60 promulgated for Asphalt Processing and Asphalt Roofing Manufacture in Subpart UU, for Small Industrial-Commercial-Institutional Steam Generating Units in Subpart Dc, and with the General Provisions set forth in Subpart A. **(08/10)**
5. These facilities shall comply with all applicable requirements of the EPA regulations on National Emission Standards for Hazardous Air Pollutants for Area Sources in 40 CFR Part 63 promulgated for Asphalt Processing and Asphalt Roofing Manufacture, Subparts A and AAAAAA. **(08/10)**

Opacity/Visible Emission Limitations

6. Opacity of particulate matter emissions from the Coalescing Filter Mist Systems (Emission Point No. [EPN] CFL/34), and the Electrostatic Precipitator (EPN CFL/34) (when used as a back-up control device for the filter mist systems), dust collector stacks, baghouse stacks, process heater vents, and building vents shall not exceed 5 percent. Determination of compliance with this requirement shall be made by first observing for visible emissions during normal plant operations. Observations shall be made at least 15 feet and no more than 0.25 mile from the emission point. If visible emissions are observed from the

emission point, opacity shall be determined using the EPA 40 CFR Part 60, Appendix A, Test Method 9. Contributions from uncombined water vapor shall not be included in determining compliance with this condition. Determination of compliance with this requirement shall be performed and the results recorded quarterly. **(06/13)**

7. Opacity of particulate matter emissions from any asphalt storage tank exhaust gases discharged into the atmosphere shall not exceed 0 percent except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for clearing. The control device shall not be bypassed during this 15-minute period. Opacity of particulate matter emissions from any blowing still shall not exceed 0 percent. Opacity of emissions from any storage silo and mineral handling facility shall not exceed 1 percent. Determination of compliance with this requirement shall be made by first observing for visible emissions during normal plant operations. Observations shall be made at least 15 feet and no more than 0.25 mile from the emission point. If visible emissions are observed from the emission point, opacity shall be determined using the EPA 40 CFR Part 60, Appendix A, Test Method 9. Contributions from uncombined water vapor shall not be included in determining compliance with this condition. Determination of compliance with this requirement shall be performed and the results recorded quarterly. **(06/13)**
8. There shall be no visible fugitive emissions leaving the property from emissions from the asphalt processing and asphalt roofing manufacturing operations and facilities, roads, or travel areas. Observations for visible emissions shall be performed and recorded quarterly. The visible emissions determination shall be made during normal plant operations. Observations shall be made on the downwind property line for a minimum of six minutes. If visible emissions are observed, an evaluation must be accomplished in accordance with the EPA 40 CFR Part 60, Appendix A, Test Method 22, using the criteria that visible emissions shall not exceed a cumulative 30 seconds in duration in any six-minute period. If visible emissions exceed the Test Method 22 criteria, corrective action to eliminate the excessive visible emissions shall be taken promptly and documented within 24 business hours of first observing the visible emissions. Stack emissions may leave the plant property provided that opacity restrictions are not violated. **(06/13)**

Operational Limitations, Work Practices, and Plant Design

9. All filler and backing material shall be received and transferred within the building with no visible emissions leaving the building. **(08/10)**
10. The emissions from Stillyard Asphalt Storage Tank Nos. T-1, T-2, T-8, T-9, T-10, T-14, T-15, T-110, and T-120; from Blowing Stills T-13 and T-26; from truck and railcar loading and unloading operations; and from the self-seal asphalt storage tank shall be vented to the thermal oxidizer (direct-flame incinerator). **(08/10)**
11. Fabric filter baghouses, properly installed and in good working order, shall control particulate matter emissions from the Stabilizer Storages, Stabilizer Heaters, the Line 1 Stabilizer Use Bin, and Sand Application when this equipment is in operation. **(06/13)**

12. Dust collectors, properly installed and in good working order, shall control particulate matter emissions from the Line 1 Surfacing Section when this equipment is in operation. **(06/13)**
13. Upon issuance of the amended permit, the thermal oxidizer (direct-flame incinerator) shall be operated at an average incineration temperature of 1450°F measured immediately downstream of the incinerator, based on a one-hour averaging period, during normal operations. Normal operations are herein defined as any time period when asphalt blowing is occurring, and emissions from the blowing are vented to the direct-flame incinerator. The direct-flame incinerator shall be operated at a minimum incineration temperature of 1300°F during Standby Operating Conditions to assure compliance with the maximum allowable emission rates table (MAERT) limits for volatile organic compounds (VOC) from EPN 8/8A. Standby operating conditions are herein defined as when no process blowers are in operation on any blowing still venting to the direct-flame incinerator. **(08/10)**
14. After issuance of the amended permit, the permit holder is allowed to conduct stack sampling of the thermal oxidizer (direct-flame incinerator) during normal operations at an average temperature lower than 1450°F to demonstrate compliance with the MAERT limits for VOC from EPN 8/8A. Upon demonstration of compliance with the MAERT limits for VOC, the permit holder shall submit a permit action to modify the temperature requirement of the thermal oxidizer (direct-flame incinerator) during Normal Operations. **(08/10)**
15. The maximum allowable asphalt throughput rates are 32,063 pounds per hour for Line 1 and 53,438 pounds per hour for Line 3. **(08/10)**
16. The maximum allowable production rates for both Line 1 and Line 3, combined, are 171 tons per hour and 1,498,000 tons per year of finished shingles. **(08/10)**
17. An opacity violation or an odor nuisance condition, as confirmed by the TCEQ or any local air pollution control program with jurisdiction, may be cause for additional controls. If the nuisance condition persists, subsequent stack sampling may also be required.
18. All in-plant roads and areas subject to road vehicle traffic shall be paved with a cohesive hard surface and cleaned, as necessary, to maintain compliance with the TCEQ rules and regulations. Unpaved work areas shall be sprayed with water and/or environmentally sensitive chemicals upon detection of visible PM emissions to maintain compliance with all TCEQ rules and regulations.
19. All stacks associated with the Line 1 Cooling Section (EPN COOL1) shall be no less than 64 feet measured from ground level. All stacks associated with the Line 3 Cooling Section (EPN COOL3) shall be no less than 73 feet measured from ground level. **(08/10)**

20. There shall be no changes in representations unless the permit is altered or amended. **(08/10)**

Continuous Determination of Compliance

21. Upon being informed by the TCEQ Executive Director that the staff has documented visible emissions that exceed the specified opacity limits, the holder of this permit may be required to conduct stack sampling analyses or other tests to prove satisfactory abatement or process equipment performance and demonstrate compliance with the PM and VOC allowable emissions specified in the MAERT. Sampling must be conducted in accordance with appropriate procedures of the TCEQ Sampling Procedures Manual and in accordance with applicable EPA CFR procedures. Any deviations from those procedures must be approved by the TCEQ Executive Director prior to sampling. **(08/10)**
22. The TCEQ Executive Director may require the permit holder to perform stack sampling or ambient air monitoring to determine the opacity, rate, composition, and/or concentration of the plant's emissions. The holder of this permit may request the TCEQ Executive Director to approve alternate sampling techniques or other means to determine the opacity, rates, composition, and/or concentration of emissions in accordance with 30 TAC § 101.8. **(08/10)**
23. All stack sampling shall be conducted within 60 days of being informed that testing is required, and it shall meet all requirements specified in the Sampling Requirements section of this permit's special conditions. **(08/10)**
24. For any asphalt storage tank and storage silo and mineral handling facility, visible emissions observations shall be made and recorded once per week. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the corresponding opacity limit, the permit holder shall report a deviation. **(08/10)**

25. For any blowing still, visible emissions observations shall be made and recorded once per week. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If a Test Method 9 is performed, the opacity limit is the corresponding opacity limit associated with the particulate matter standard in the underlying requirement. If there is no corresponding opacity limit in the underlying applicable requirement, the maximum opacity will be established using the most recent performance test. If the result of the Test Method 9 is opacity above the corresponding opacity limit (associated with the particulate matter standard in the underlying applicable requirement or as identified as a result of a previous performance test to establish the maximum opacity limit), the permit holder shall report a deviation. **(08/10)**
26. The temperature in the combustion chamber or immediately downstream of the combustion chamber of the thermal oxidizer (direct-flame incinerator) shall be measured and recorded four times per hour with an averaging period of one hour. The permit holder shall establish a minimum combustion temperature using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation. **(08/10)**

Compliance Assurance Monitoring

27. The 3-hour average inlet gas temperature for the Coalescing Filter Mist Elimination Systems (Line 1 and Line 3 Asphalt Coaters) with ESP as Backup (EPN CFL/34) shall be maintained within the operating range established as specified in 40 Code of Federal Regulations (40 CFR) § 63.11562(a)(2) and (b)(3). The 3-hour average pressure drop across the device shall be maintained within the approved operating range established as specified in 40 CFR § 63.11562(a)(2) and (b)(3). **(06/13)**

Sampling Requirements

28. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling ports and platforms shall be installed on the exhaust stack according to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities" prior to stack sampling. Alternate sampling facility designs may be submitted for approval by the TCEQ Executive Director.
29. The plant shall operate at the maximum shingle production and raw material throughput rates and operating parameters, represented in the confidential file, during stack emissions testing being conducted for continuing compliance demonstrations. If the plant is unable to operate at the maximum rates during compliance testing, then the production/throughput rates or other parameters may be limited to the rates established during testing. If stack testing was not accomplished at the maximum production/throughput rates, then such testing may be required prior to actual operations at the maximum rates. **(08/10)**
30. A pretest meeting concerning any required stack sampling and/or ambient air monitoring shall be held with personnel from the appropriate TCEQ Regional Office before the required tests are performed. Air contaminants to be tested for and the test methods to be used shall be determined at this pretest meeting.

The TCEQ Regional Office shall be notified no less than 45 days prior to sampling to schedule a pretest meeting. The notice to the TCEQ Regional Office shall include:

- A. Date for pretest meeting;
- B. Date sampling will occur;
- C. Name of firm conducting sampling;
- D. Type of sampling equipment to be used; and
- E. Method or procedure to be used in sampling.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test results.

31. Air contaminants to be tested for may include (but are not limited to) PM, CO, SO₂, NO_x, and VOC.
32. A written proposed description of any deviation from sampling procedures specified in permit conditions or TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Office shall approve or disapprove of any deviation from specified sampling procedures.

33. The sampling report shall include the following: **(08/10)**
- A. Plant production and throughput rates during tests; and
 - B. Thermal oxidizer (direct-flame incinerator) operating temperature during tests.
34. Copies of the final sampling report shall be submitted within 30 days after sampling is completed. Sampling reports shall comply with the provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows: **(08/10)**
- One copy to the TCEQ Dallas/Fort Worth Regional Office; and
One copy to each appropriate local air pollution control program.
35. Requests to waive testing for any pollutant specified in the above special conditions shall be submitted to the TCEQ Office of Air, Air Permits Division.

Recordkeeping Requirements

36. In addition to the recordkeeping requirements specified in General Condition No. 7, 40 CFR Part 60, Subparts A, Dc, and UU, and 40 CFR Part 63, Subparts A and AAAAAAA, the following records shall be kept and maintained on-site for a rolling 60-month period: **(06/13)**
- A. Records of the exhaust gas temperature immediately downstream of the thermal oxidizer (direct-flame incinerator) to demonstrate compliance with 30 TAC § 115.126(1)(A)(i);
 - B. Records of either VOC concentration or mass emission rate of each vent gas stream for the Line 1 and Line 3 Cooling Sections at maximum actual operating conditions to demonstrate compliance with 30 TAC § 115.126(4);
 - C. Hourly asphalt throughput rates for Line 1 and for Line 3;
 - D. Combined Line 1 and Line 3 hourly and annual production rates of finished shingles;
 - E. Records of asphalt stored and used, that have the potential to emit Hazardous Air Pollutants [HAP], shall be kept in sufficient detail in order to allow all required emission rates to be fully and accurately calculated. Using this recorded data, a report shall be produced for the emission of HAPs (in tons per year) over the previous 12 consecutive months;
 - F. Records of repairs and maintenance of all pollution abatement equipment;
 - G. Quarterly observations for visible emissions and/or opacity determinations;

- H. Records of road cleaning, application of road dust control, or road maintenance for dust control; and
- I. All monitoring data and support information as specified in 30 TAC § 122.144.

Dated: June 14, 2013

Emission Sources - Maximum Allowable Emission Rates

Permit Number 7711A

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (5)	
			lbs/hour	TPY (4)
Stillyard Operation				
HTR3	T-1 Laminating Adhesive Bulk Storage Tank Heater Vent	NO _x	0.05	0.22
		SO ₂	0.01	0.01
		PM	0.01	0.02
		PM ₁₀	0.01	0.02
		PM _{2.5}	0.01	0.02
		CO	0.04	0.18
		VOC	0.01	0.01
HTR4	T-2 Laminating Adhesive Bulk Storage Tank heater Vent	NO _x	0.05	0.22
		SO ₂	0.01	0.01
		PM	0.01	0.02
		PM ₁₀	0.01	0.02
		PM _{2.5}	0.01	0.02
		CO	0.04	0.18
		VOC	0.01	0.01
HTR5	Asphalt Heater for T-14 and T-15 Coating Asphalt Storage and Coating Feed Loop Vent	NO _x	0.10	0.43
		SO ₂	0.01	0.01
		PM	0.01	0.03
		PM ₁₀	0.01	0.03
		PM _{2.5}	0.01	0.03

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (5)	
			lbs/hour	TPY (4)
HTR5	Asphalt Heater for T-14 and T-15 Coating Asphalt Storage and Coating Feed Loop Vent	CO	0.08	0.36
		VOC	0.01	0.02
BLR5	Standby Boiler Vent	NO _x	0.82	3.59
		SO ₂	0.01	0.04
		PM	0.16	0.70
		PM ₁₀	0.16	0.70
		PM _{2.5}	0.16	0.70
		CO	1.73	7.58
		VOC	0.11	0.48
8/8A	Thermal Oxidizer (Direct Flame Incinerator) Exhaust through Waste Heat Boiler Stack	NO _x	1.90	8.31
		SO ₂	29.35	128.55
		PM	2.62	11.46
		PM ₁₀	2.62	11.46
		PM _{2.5}	2.62	11.46
		CO	11.34	49.65
		VOC	0.09	0.37
WHBLR1	Waste Heat Recovery Boiler Natural Gas Burner Side Vent	NO _x	0.47	2.06
		SO ₂	0.01	0.04
		PM	0.11	0.48
		PM ₁₀	0.11	0.48
		PM _{2.5}	0.11	0.48
		CO	1.24	5.43
		VOC	0.08	0.35

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (5)	
			lbs/hour	TPY (4)
Common to Line 1 and Line 3				
CFL/34	Coalescing Filter Mist Elimination Systems (Line 1 and Line 3 Asphalt Coaters) with ESP as Backup (Stack)	PM	0.63	2.76
		PM ₁₀	0.63	2.76
		PM _{2.5}	0.63	2.76
		VOC	5.76	25.23
Line 1 Operation				
1-1	Line 1 Stabilizer Storage and Heater Baghouse Stack	PM	0.23	1.01
		PM ₁₀	0.23	1.01
		PM _{2.5}	0.23	1.01
1-3	Line 1 Stabilizer Use Bin Baghouse Stack	PM	0.03	0.13
		PM ₁₀	0.03	0.13
		PM _{2.5}	0.03	0.13
1-4	Line 1 Surfacing Section Dust Collector No. 1 Stack	PM	0.59	2.58
		PM ₁₀	0.59	2.58
		PM _{2.5}	0.59	2.58
1-5	Line 1 Surfacing Section Dust Collector No. 2 Stack	PM	0.59	2.58
		PM ₁₀	0.59	2.58
		PM _{2.5}	0.59	2.58
1-6	Line 1 Surfacing Section Dust Collector No. 3 Stack	PM	0.59	2.58
		PM ₁₀	0.59	2.58
		PM _{2.5}	0.59	2.58
Cool 1	Line 1 Cooling Section (3 stacks)	PM	8.52	37.30
		PM ₁₀	8.52	37.30

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (5)	
			lbs/hour	TPY (4)
Cool 1	Line 1 Cooling Section (3 stacks)	PM _{2.5}	8.52	37.30
		VOC	1.65	7.23
Line 3 Operation				
25	Sand Application Baghouse Stack	PM	1.50	6.57
		PM ₁₀	1.50	6.57
		PM _{2.5}	1.50	6.57
26A	Stabilizer Storage Baghouse A Stack	PM	0.15	0.70
		PM ₁₀	0.15	0.70
		PM _{2.5}	0.15	0.70
26B	Stabilizer Storage Baghouse B Stack	PM	0.29	1.26
		PM ₁₀	0.29	1.26
		PM _{2.5}	0.29	1.26
27	Stabilizer Heater Baghouse Stack	PM	0.09	0.40
		PM ₁₀	0.09	0.40
		PM _{2.5}	0.09	0.40
28	Asphalt Heater Vent	NO _x	0.59	2.60
		SO ₂	<0.01	0.02
		PM	0.04	0.20
		PM ₁₀	0.04	0.20
		PM _{2.5}	0.04	0.20
		CO	0.50	2.20
		VOC	0.03	0.10

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (5)	
			lbs/hour	TPY (4)
FUG1	Plant-wide Fugitive Emissions	PM	0.91	3.97
		PM ₁₀	0.91	3.97
		PM _{2.5}	0.91	3.97
		VOC	0.43	1.88
COOL3	Line 3 Cooling Section (3 stacks)	PM	6.74	29.52
		PM ₁₀	6.74	29.52
		PM _{2.5}	6.74	29.52
		VOC	2.76	12.09
HTR6	Line 3 Stabilizer Thermal Fluid Heater Vent	NO _x	0.60	2.58
		SO ₂	0.01	0.02
		PM	0.05	0.20
		PM ₁₀	0.05	0.20
		PM _{2.5}	0.05	0.20
		CO	0.49	2.16
		VOC	0.03	0.14
All Source (site-wide)	Various	Single HAP	--	<10
		Aggregate HAP	--	<25

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- NO_x - total oxides of nitrogen
- SO₂ - sulfur dioxide
- PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
- PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
- PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
- CO - carbon monoxide

Emission Sources - Maximum Allowable Emission Rates

- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Planned startup and shutdown emissions are included. Maintenance activities are not authorized by this permit.

Dated: June 14, 2013

1. EXECUTIVE SUMMARY

Building Materials Corporation of America doing business as GAF Materials Corporation (GAF) owns and operates an asphalt roofing production facility located in Dallas, Texas (Dallas Plant). GAF operates under Texas Commission on Environmental Quality (TCEQ) Customer Reference Number (CN) 602717464. The Dallas Plant has been assigned TCEQ Air Quality Account Number DB-0378-S and Regulated Entity Number (RN) 100788959. The Dallas Plant operates under New Source Review (NSR) Permit No. 7711A, with additional support equipment authorized by Permit-by-Rule (PBR).

Dallas County is currently an attainment or unclassified area for all criteria pollutants except the 8-hour ozone standard for which it has been designated a serious nonattainment area.¹ The Dallas Plant is an existing minor source with respect to Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NNSR), but is a major source with respect to the federal operating permits program (Title V) due to potential emissions of particulate matter with an aerodynamic diameter of less than or equal to 10 microns (PM₁₀) and sulfur dioxide (SO₂).

Since the breakdown of the Waste Heat Boiler (EPN WHBLR1), GAF has been operating a Standby Boiler (EPN BLR5) continuously in 2011. A permit alternation was submitted in December 2011 to permit BLR5 to operate at 8 million British thermal unit per hour (MMBtu/hr) and is limited to 2,280 annual hours of operation. The Waste Heat Boiler is currently back in operation. With this project, GAF proposes to replace the burner associated with this boiler with a 19 MMBtu/hr burner and be able to operate up to 8,760 hours per year, to accommodate any repairs or shutdowns of the Waste Heat Boiler in future.

This permit amendment application is submitted in accordance with Title 30 Texas Administrative Code (TAC) Chapter 116. This application includes a TCEQ Form PI-1 and supporting documentation. A permit fee is paid electronically via TCEQ's ePay system.

¹ The United States Protection Agency (U.S. EPA) Green Book.

Source: <http://www.epa.gov/oaqps001/greenbk/index.html>, accessed August, 2012.



Texas Commission on Environmental Quality
Form PI-1 General Application for
Air Preconstruction Permit and Amendment

Important Note: The agency **requires** that a Core Data Form be submitted on all incoming applications unless a Regulated Entity and Customer Reference Number have been issued *and* no core data information has changed. For more information regarding the Core Data Form, call (512) 239-5175 or go to www.tceq.texas.gov/permitting/central_registry/guidance.html.

I. Applicant Information		
A. Company or Other Legal Name: Building Materials Corporation of America		
Texas Secretary of State Charter/Registration Number (<i>if applicable</i>):		
B. Company Official Contact Name: Bruce Dahlgren		
Title: Plant Manager		
Mailing Address: 2600 Singleton Blvd.		
City: Dallas	State: TX	ZIP Code: 75212
Telephone No.: 214-637-8970	Fax No.: 214-637-5202	E-mail Address: bdahlgren@gaf.com
C. Technical Contact Name: Durwin Farlough		
Title: Project Engineer		
Company Name: Building Materials Corporation of America		
Mailing Address: 2600 Singleton Blvd.		
City: Dallas	State: TX	ZIP Code: 75212
Telephone No.: 214-637-8977	Fax No.: 214-637-5202	E-mail Address: DFarlough@gaf.com
D. Site Name: GAF Materials - Dallas Plant		
E. Area Name/Type of Facility: Asphalt Coaters		<input checked="" type="checkbox"/> Permanent <input type="checkbox"/> Portable
F. Principal Company Product or Business: Asphalt roofing manufacturing		
Principal Standard Industrial Classification Code (SIC): 2951/2952		
Principal North American Industry Classification System (NAICS): 324122		
G. Projected Start of Construction Date: November 15, 2012		
Projected Start of Operation Date: December 15, 2012		
H. Facility and Site Location Information (If no street address, provide clear driving directions to the site in writing.):		
Street Address: 2600 Singleton Blvd.		
City/Town: Dallas	County: Dallas	ZIP Code: 75212
Latitude (nearest second): 32°46'38"N		Longitude (nearest second): 96°51'48"W



193376/77114
505032



Texas Commission on Environmental Quality
Form PI-1 General Application for
Air Preconstruction Permit and Amendment

I. Applicant Information (continued)	
I. Account Identification Number (leave blank if new site or facility): DB-0378-S	
J. Core Data Form.	
Is the Core Data Form (Form 10400) attached? If <i>No</i> , provide customer reference number and regulated entity number (complete K and L).	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
K. Customer Reference Number (CN): 602717464	
L. Regulated Entity Number (RN): 100788959 ✓	
II. General Information	
A. Is confidential information submitted with this application? If <i>Yes</i> , mark each confidential page confidential in large red letters at the bottom of each page.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
B. Is this application in response to an investigation or enforcement action? If <i>Yes</i> , attach a copy of any correspondence from the agency.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
C. Number of New Jobs: 0	
D. Provide the name of the State Senator and State Representative and district numbers for this facility site:	
Senator: Royce West ✓	District No.: 23
Representative: Eric Johnson ✓	District No.: 100
III. Type of Permit Action Requested	
A. Mark the appropriate box indicating what type of action is requested.	
Initial <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Revision (30 TAC 116.116(e)) <input type="checkbox"/> Change of Location <input type="checkbox"/> Relocation <input type="checkbox"/>	
B. Permit Number (if existing): 7711A ✓	
C. Permit Type: Mark the appropriate box indicating what type of permit is requested. (<i>check all that apply, skip for change of location</i>)	
Construction <input checked="" type="checkbox"/> Flexible <input type="checkbox"/> Multiple Plant <input type="checkbox"/> Nonattainment <input type="checkbox"/> Prevention of Significant Deterioration <input type="checkbox"/>	
Hazardous Air Pollutant Major Source <input type="checkbox"/> Plant-Wide Applicability Limit <input type="checkbox"/>	
Other: _____	
D. Is a permit renewal application being submitted in conjunction with this amendment in accordance with 30 TAC 116.315(c).	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO





**Texas Commission on Environmental Quality
Form PI-1 General Application for
Air Preconstruction Permit and Amendment**

III. Type of Permit Action Requested (continued)		
E. Is this application for a change of location of previously permitted facilities? If Yes, complete III.E.1 - III.E.4.		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
1. Current Location of Facility (If no street address, provide clear driving directions to the site in writing.):		
Street Address:		
City:	County:	ZIP Code:
2. Proposed Location of Facility (If no street address, provide clear driving directions to the site in writing.):		
Street Address:		
City:	County:	ZIP Code:
3. Will the proposed facility, site, and plot plan meet all current technical requirements of the permit special conditions? If No, attach detailed information.		<input type="checkbox"/> YES <input type="checkbox"/> NO
4. Is the site where the facility is moving considered a major source of criteria pollutants or HAPs?		<input type="checkbox"/> YES <input type="checkbox"/> NO
F. Consolidation into this Permit: List any standard permits, exemptions or permits by rule to be consolidated into this permit including those for planned maintenance, startup, and shutdown.		
List:		
G. Are you permitting planned maintenance, startup, and shutdown emissions? If Yes, attach information on any changes to emissions under this application as specified in VII and VIII.		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
H. Federal Operating Permit Requirements (30 TAC Chapter 122 Applicability)		
Is this facility located at a site required to obtain a federal operating permit? If Yes, list all associated permit number(s), attach pages as needed.		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> To be determined
Associated Permit No (s.): 2771		
1. Identify the requirements of 30 TAC Chapter 122 that will be triggered if this application is approved.		
FOP Significant Revision <input type="checkbox"/> FOP Minor <input type="checkbox"/> Application for an FOP Revision <input type="checkbox"/> To Be Determined <input checked="" type="checkbox"/>		
Operational Flexibility/Off-Permit Notification <input type="checkbox"/> Streamlined Revision for GOP <input type="checkbox"/> None <input type="checkbox"/>		





**Texas Commission on Environmental Quality
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III. Type of Permit Action Requested (continued)

H. Federal Operating Permit Requirements (30 TAC Chapter 122 Applicability) (continued)

2. Identify the type(s) of FOP(s) issued and/or FOP application(s) submitted/pending for the site. (check all that apply)

GOP Issued ☐

GOP application/revision application submitted or under APD review ☐

SOP Issued ☒

SOP application/revision application submitted or under APD review ☐

IV. Public Notice Applicability

A. Is this a new permit application or a change of location application? ☐ YES ☒ NO

B. Is this application for a concrete batch plant? If Yes, complete V.C.1 – V.C.2. ☐ YES ☒ NO

C. Is this an application for a major modification of a PSD, nonattainment, FCAA 112(g) permit, or exceedance of a PAL permit? ☐ YES ☒ NO

D. Is this application for a PSD or major modification of a PSD located within 100 kilometers or less of an affected state or Class I Area? ☐ YES ☒ NO

If Yes, list the affected state(s) and/or Class I Area(s).

E. Is this a state permit amendment application? If Yes, complete IV.E.1. – IV.E.3.

1. Is there any change in character of emissions in this application? ☐ YES ☒ NO

2. Is there a new air contaminant in this application? ☐ YES ☒ NO

3. Do the facilities handle, load, unload, dry, manufacture, or process grain, seed, legumes, or vegetables fibers (agricultural facilities)? ☐ YES ☒ NO

F. List the total annual emission increases associated with the application (*list all that apply and attach additional sheets as needed*):

Volatile Organic Compounds (VOC): **0.43**

Sulfur Dioxide (SO₂): **0.04**

Carbon Monoxide (CO): **6.83**

Nitrogen Oxides (NO_x): **2.70**

Particulate Matter (PM): **0.63**

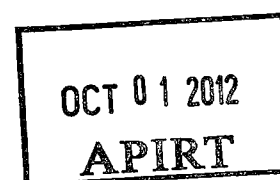
PM₁₀ microns or less (PM₁₀): **0.63**

PM_{2.5} microns or less (PM_{2.5}): **0.63**

Lead (Pb):

Hazardous Air Pollutants (HAPs):

Other speciated air contaminants not listed above:





**Texas Commission on Environmental Quality
Form PI-1 General Application for
Air Preconstruction Permit and Amendment**

III. Type of Permit Action Requested (continued)

H. Federal Operating Permit Requirements (30 TAC Chapter 122 Applicability) (continued)

2. Identify the type(s) of FOP(s) issued and/or FOP application(s) submitted/pending for the site. (check all that apply)

GOP Issued ☐

GOP application/revision application submitted or under APD review ☐

SOP Issued ☒

SOP application/revision application submitted or under APD review ☐

IV. Public Notice Applicability

A. Is this a new permit application or a change of location application? ☐ YES ☒ NO

B. Is this application for a concrete batch plant? If Yes, complete V.C.1 – V.C.2. ☐ YES ☒ NO

C. Is this an application for a major modification of a PSD, nonattainment, FCAA 112(g) permit, or exceedance of a PAL permit? ☐ YES ☒ NO

D. Is this application for a PSD or major modification of a PSD located within 100 kilometers or less of an affected state or Class I Area? ☐ YES ☒ NO

If Yes, list the affected state(s) and/or Class I Area(s).

E. Is this a state permit amendment application? If Yes, complete IV.E.1. – IV.E.3.

1. Is there any change in character of emissions in this application? ☐ YES ☒ NO

2. Is there a new air contaminant in this application? ☐ YES ☒ NO

3. Do the facilities handle, load, unload, dry, manufacture, or process grain, seed, legumes, or vegetables fibers (agricultural facilities)? ☐ YES ☒ NO

F. List the total annual emission increases associated with the application (*list all that apply and attach additional sheets as needed*):

Volatile Organic Compounds (VOC):

Sulfur Dioxide (SO₂):

Carbon Monoxide (CO):

See Application

Nitrogen Oxides (NO_x):

Particulate Matter (PM):

PM₁₀ microns or less (PM₁₀):

PM_{2.5} microns or less (PM_{2.5}):

Lead (Pb):

Hazardous Air Pollutants (HAPs):

Other speciated air contaminants **not** listed above:

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Texas Commission on Environmental Quality
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V. Public Notice Information (complete if applicable)			
A. Public Notice Contact Name:			
Title:			
Mailing Address:			
City:	State:	ZIP Code:	
Telephone No.:			
B. Name of the Public Place:			
Physical Address (No P.O. Boxes):			
City:	County:	ZIP Code:	
The public place has granted authorization to place the application for public viewing and copying.			<input type="checkbox"/> YES <input type="checkbox"/> NO
The public place has internet access available for the public.			<input type="checkbox"/> YES <input type="checkbox"/> NO
C. Concrete Batch Plants, PSD, and Nonattainment Permits			
1. County Judge Information (For Concrete Batch Plants and PSD and/or Nonattainment Permits) for this facility site.			
The Honorable:			
Mailing Address:			
City:	State:	ZIP Code:	
2. Is the facility located in a municipality or an extraterritorial jurisdiction of a municipality? <i>(For Concrete Batch Plants)</i>			<input type="checkbox"/> YES <input type="checkbox"/> NO
Presiding Officers Name(s):			
Title:			
Mailing Address:			
City:	State:	ZIP Code:	
3. Provide the name, mailing address of the chief executive of the city for the location where the facility is or will be located.			
Chief Executive: Not Applicable			
Mailing Address:			
City:	State:	ZIP Code:	





**Texas Commission on Environmental Quality
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V. Public Notice Information (complete if applicable) (continued)

3. Provide the name, mailing address of the Indian Governing Body for the location where the facility is or will be located. *(continued)*

Name of the Indian Governing Body: Not Applicable

Title:

Mailing Address:

City:

State:

ZIP Code:

D. Bilingual Notice

Is a bilingual program **required** by the Texas Education Code in the School District? ☐ YES ☐ NO

Are the children who attend either the elementary school or the middle school closest to your facility eligible to be enrolled in a bilingual program provided by the district? ☐ YES ☐ NO

If Yes, list which languages are required by the bilingual program?

Spanish

VI. Small Business Classification (Required)

A. Does this company (including parent companies and subsidiary companies) have fewer than 100 employees or less than \$6 million in annual gross receipts? ☐ YES ☒ NO

B. Is the site a major stationary source for federal air quality permitting? ☒ YES ☐ NO

C. Are the site emissions of any regulated air pollutant greater than or equal to 50 tpy? ☒ YES ☐ NO

D. Are the site emissions of all regulated air pollutants combined less than 75 tpy? ☒ YES ☐ NO

VII. Technical Information

A. The following information must be submitted with your Form PI-1 (this is just a checklist to make sure you have included everything)

1. Current Area Map ☒

2. Plot Plan ☒

3. Existing Authorizations ☒

4. Process Flow Diagram ☒

5. Process Description ☒

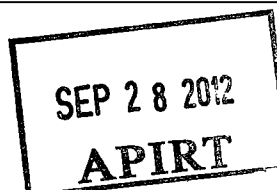
6. Maximum Emissions Data and Calculations ☒

7. Air Permit Application Tables ☒

a. Table 1(a) (Form 10153) entitled, Emission Point Summary ☒

b. Table 2 (Form 10155) entitled, Material Balance ☐

c. Other equipment, process or control device tables ☒





**Texas Commission on Environmental Quality
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VII. Technical Information			
B. Are any schools located within 3,000 feet of this facility?			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
C. Maximum Operating Schedule:			
Hours:24	Day(s):7	Week(s):52	Year(s):8760
Seasonal Operation? If Yes, please describe in the space provide below.			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
D. Have the planned MSS emissions been previously submitted as part of an emissions inventory?			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Provide a list of each planned MSS facility or related activity and indicate which years the MSS activities have been included in the emissions inventories. Attach pages as needed.			
E. Does this application involve any air contaminants for which a <i>disaster review</i> is required?			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
F. Does this application include a pollutant of concern on the <i>Air Pollutant Watch List (APWL)</i> ?			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
VIII. State Regulatory Requirements Applicants must demonstrate compliance with all applicable state regulations to obtain a permit or amendment. The application must contain detailed attachments addressing applicability or non applicability; identify state regulations; show how requirements are met; and include compliance demonstrations.			
A. Will the emissions from the proposed facility protect public health and welfare, and comply with all rules and regulations of the TCEQ?			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
B. Will emissions of significant air contaminants from the facility be measured?			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
C. Is the Best Available Control Technology (BACT) demonstration attached?			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
D. Will the proposed facilities achieve the performance represented in the permit application as demonstrated through recordkeeping, monitoring, stack testing, or other applicable methods?			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
IX. Federal Regulatory Requirements Applicants must demonstrate compliance with all applicable federal regulations to obtain a permit or amendment. The application must contain detailed attachments addressing applicability or non applicability; identify federal regulation subparts; show how requirements are met; and include compliance demonstrations.			
A. Does Title 40 Code of Federal Regulations Part 60, (40 CFR Part 60) New Source Performance Standard (NSPS) apply to a facility in this application?			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
B. Does 40 CFR Part 61, National Emissions Standard for Hazardous Air Pollutants (NESHAP) apply to a facility in this application?			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
C. Does 40 CFR Part 63, Maximum Achievable Control Technology (MACT) standard apply to a facility in this application?			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

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**Texas Commission on Environmental Quality
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IX. Federal Regulatory Requirements Applicants must demonstrate compliance with all applicable federal regulations to obtain a permit or amendment. The application must contain detailed attachments addressing applicability or non applicability; identify federal regulation subparts; show how requirements are met; and include compliance demonstrations.	
D. Do nonattainment permitting requirements apply to this application?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
E. Do prevention of significant deterioration permitting requirements apply to this application?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
F. Do Hazardous Air Pollutant Major Source [FCAA 112(g)] requirements apply to this application?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
G. Is a Plant-wide Applicability Limit permit being requested?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
X. Professional Engineer (P.E.) Seal	
Is the estimated capital cost of the project greater than \$2 million dollars?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If Yes, submit the application under the seal of a Texas licensed P.E.	
XI. Permit Fee Information	
Check, Money Order, Transaction Number ,ePay Voucher Number: 161612	Fee Amount: \$900
Company name on check:	Paid online?: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Is a copy of the check or money order attached to the original submittal of this application?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
Is a Table 30 (Form 10196) entitled, Estimated Capital Cost and Fee Verification, attached?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A





**Texas Commission on Environmental Quality
Form PI-1 General Application for
Air Preconstruction Permit and Amendment**

XII. Delinquent Fees and Penalties

This form **will not be processed** until all delinquent fees and/or penalties owed to the TCEQ or the Office of the Attorney General on behalf of the TCEQ is paid in accordance with the Delinquent Fee and Penalty Protocol. For more information regarding Delinquent Fees and Penalties, go to the TCEQ Web site at:
www.tceq.texas.gov/agency/delin/index.html.

XIII. Signature

The signature below confirms that I have knowledge of the facts included in this application and that these facts are true and correct to the best of my knowledge and belief. I further state that to the best of my knowledge and belief, the project for which application is made will not in any way violate any provision of the Texas Water Code (TWC), Chapter 7, Texas Clean Air Act (TCAA), as amended, or any of the air quality rules and regulations of the Texas Commission on Environmental Quality or any local governmental ordinance or resolution enacted pursuant to the TCAA. I further state that I understand my signature indicates that this application meets all applicable nonattainment, prevention of significant deterioration, or major source of hazardous air pollutant permitting requirements. The signature further signifies awareness that intentionally or knowingly making or causing to be made false material statements or representations in the application is a criminal offense subject to criminal penalties.

Name: Bruce Danlgren

Signature: B. Danlgren


Original Signature Required

Date: 9/12/2012



TCEQ Interoffice Memorandum

To: Joel Stanford
Mechanical/Agricultural/Construction Section

Thru:  Daniel Menendez, Team Leader
Air Dispersion Modeling Team (ADMT)

From:  Javier Rosa
ADMT

Date: March 18, 2013

Subject: Air Quality Analysis Audit – Building Materials Corporation of America
(RN100788959)

1. Project Identification Information

Permit Application Number: 7711A

NSR Project Number: 183376

ADMT Project Number: 3942

NSRP Document Number: 462376

County: Dallas

ArcReader Published Map: <\\Msgiswrk\APD\MODEL PROJECTS\3942\3942.pmf>

Air Quality Analysis: Submitted by Trinity Consultants, February 2013, on behalf of Building Materials Corporation of America. Supplemental information was provided March 2013.

2. Report Summary

The air quality analysis is acceptable for all review types and pollutants. The results are summarized below.

A. Minor Source NSR and Air Toxics analysis

Table 1. Project-Related Modeling Results for State Property Line

Pollutant	Averaging Time	GLCmax ($\mu\text{g}/\text{m}^3$)	De Minimis ($\mu\text{g}/\text{m}^3$)
SO ₂	1-hr	0.5	20.4

TCEQ Interoffice Memorandum

Table 2. Modeling Results for Minor NSR De Minimis

Pollutant	Averaging Time	GLCmax ($\mu\text{g}/\text{m}^3$)	De Minimis ($\mu\text{g}/\text{m}^3$)
SO ₂	1-hr	0.5	7.8
SO ₂	3-hr	0.3	25
SO ₂	24-hr	0.1	5
SO ₂	Annual	0.01	1
PM ₁₀	24-hr	1.17	5
PM _{2.5}	24-hr	1.17	1.2
PM _{2.5}	Annual	0.22	0.3
NO ₂	1-hr	1.7	7.5
NO ₂	Annual	0.7	1
CO	1-hr	57	2000
CO	8-hr	26	500

The GLCmax are the maximum predicted concentrations associated with one year of meteorological data.

The justification for selecting the EPA's interim 1-hr NO₂ and 1-hr SO₂ De Minimis levels was based on the assumptions underlying EPA's development of the 1-hr NO₂ and 1-hr SO₂ De Minimis levels. As explained in EPA guidance memoranda^{1,2}, the EPA believes it is reasonable as an interim approach to use a De Minimis Level that represents 4% of the 1-hr NO₂ and 1-hr SO₂ NAAQS.

3. Model Used and Modeling Techniques

AERMOD (Version 12345) was used in a refined screening mode.

A unitized emission rate of 1 lb/hr was used to predict generic short-term and long-term impacts. The generic impacts were multiplied by the proposed pollutant specific emission rates to calculate a maximum predicted concentration for each averaging period.

¹ www.epa.gov/region07/air/nsr/nsrmemos/appwso2.pdf

² www.epa.gov/nsr/documents/20100629no2guidance.pdf

TCEQ Interoffice Memorandum

A. Land Use

Medium roughness and elevated terrain were used in the modeling analysis. These selections are consistent with the AERSURFACE analysis, topographic map, DEMs and aerial photography. The selection of medium roughness is reasonable.

B. Meteorological Data

Surface Station and ID: Dallas/Ft. Worth, TX (Station #: 3927)

Upper Air Station and ID: Fort Worth, TX (Station #: 3990)

Meteorological Dataset: 2008

Profile Base Elevation: 184 meters

C. Receptor Grid

The grid modeled was sufficient in density and spatial coverage to capture representative maximum ground-level concentrations.

D. Building Wake Effects (Downwash)

Input data to Building Profile Input Program Prime (Version 04274) are consistent with the aerial photography, plot plan and modeling report.

4. Modeling Emissions Inventory

The modeled emission point source parameters and rates were consistent with the modeling report. The source characterization used to represent the sources was appropriate.

NO_x to NO₂ conversion factors of 0.8 and 0.75 were applied to the predicted 1-hr and annual NO_x concentrations, respectively, which is consistent with guidance for combustion sources.

Maximum allowable hourly emission rates were used for the short-term averaging time analyses, and annual average emission rates were used for the annual averaging time analyses.



12770 Merit Drive | Suite 900 | Dallas, TX 75251 | P (972) 661-8100 | F (972) 385-9203

trinityconsultants.com

RECEIVED

FEB 18 2013

AIR PERMITS DIVISION

Trinity
Consultants

February 14, 2013

Mr. Joel Stanford
Air Permits Division
Texas Commission on Environmental Quality
12100 Park 35 Circle, MC 163
Building C, Third Floor
Austin, TX 78753

RE: *Air Dispersion Modeling Report in Support of New Source Review (NSR) Permit Application – Permit No. 7711A*
GAF Materials Corporation – Dallas Plant, Dallas, Dallas County, TX
TCEQ Customer Reference Number (CN) 602717464
TCEQ Regulated Entity Number (RN) 100788959

Dear Mr. Stanford:

Building Materials Corporation of America doing business as GAF Materials Corporation (GAF) submitted a New Source Review (NSR) permit amendment application for the replacement of a standby boiler burner at their asphalt roofing production facility to the Texas Commission on Environmental Quality (TCEQ) on September 28, 2012.

Per your letter dated February 4, 2013, GAF is submitting the required air quality analysis in support of the NSR permit amendment application for the boiler replacement project. An updated TCEQ Table 1(a) is included in Appendix A to the modeling report. As demonstrated in the enclosed modeling report, the predicted impacts from the proposed project will not cause or contribute to a violation of any applicable National Ambient Air Quality Standards (NAAQS) or State Property Line Standard, or cause or contribute to adverse impacts on human health or the environment.

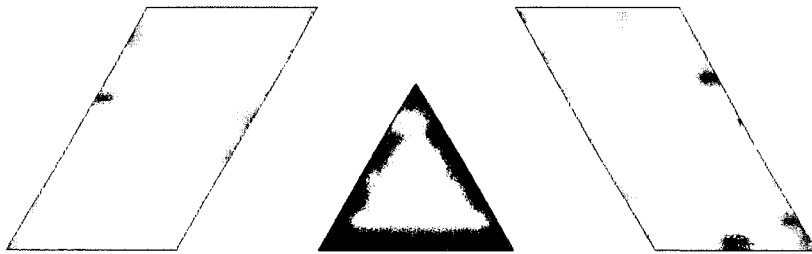
If you have any questions or require additional information, please feel free to contact me at (972) 661-8100 or Mr. Durwin Farlough of GAF at (214) 637-8977. Thank you for your attention to this matter.

Sincerely,

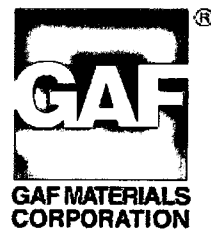
TRINITY CONSULTANTS

Latha Kambham, Ph.D.
Senior Consultant

cc: Ms. Alyssa Taylor, Air Section Manager TCEQ Regional Office 4
Mr. David Miller, City of Dallas
Mr. Durwin Farlough, GAF
Mr. Bruce Dahlgren, GAF



STATE AIR QUALITY ANALYSIS
GAF Materials Corporation > Dallas Plant
Standby Boiler Replacement Project



GAF Materials Corporation
2600 Singleton Blvd.
Dallas, TX 75212
(214) 637-1060

Durwin Farlough - Engineering Manager
Bruce Dahlgren - Plant Manager

Prepared by
TRINITY CONSULTANTS

Latha Kambham, Ph.D. - Senior Consultant
Anna Unruh - Consultant

February 2013

Project 124401.0071

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Consultants

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1. EXECUTIVE SUMMARY

Building Materials Corporation of America doing business as GAF Materials Corporation (GAF) is submitting this air quality analysis in support of the Texas Commission on Environmental Quality (TCEQ) New Source Review (NSR) permit amendment application for the replacement of a standby boiler burner at their asphalt roofing production facility located in Dallas, Dallas County, Texas (Dallas Plant).

Dallas County is currently an attainment or unclassified area for all criteria pollutants except the 8-hour ozone standard for which it has been designated a serious nonattainment area.¹ The Dallas Plant is an existing minor source with respect to Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NNSR). Based on calculated emissions for the project presented in the permit application, the proposed increase in emissions are below major source thresholds for PSD review.

GAF operates under TCEQ Customer Reference Number (CN) 602717464. The Dallas Plant has been assigned TCEQ Air Quality Account Number DB-0378-S and Regulated Entity Number (RN) 100788959. The Dallas Plant operates under NSR Permit No. 7711A, with additional support equipment authorized by Permit-by-Rule (PBR).

GAF submitted an NSR permit amendment application for the proposed boiler replacement to the TCEQ on September 28, 2012. The TCEQ requested that GAF submit an air dispersion modeling analysis to demonstrate that the emissions of criteria pollutants [i.e. particulate matter less than 10 microns in diameter (PM₁₀), particulate matter less than 2.5 microns in diameter (PM_{2.5}), carbon monoxide (CO), nitrogen oxides (NO_x), and sulfur dioxide (SO₂)] from the proposed project will not cause or contribute to a violation of any applicable National Ambient Air Quality Standards (NAAQS).²

The State NAAQS air quality dispersion modeling analysis is conducted to evaluate the criteria pollutants in accordance with current TCEQ and United States Environmental Protection Agency (U.S. EPA) modeling procedures.^{3,4} The modeling procedure used for the State NAAQS modeling was based on discussion with the TCEQ Air Dispersion Modeling Team (ADMT).⁵ Table 1(a) in Appendix A of this modeling report updates the Table 1(a) submitted in the September 2012 permit amendment application.⁶ A table summarizing the modeled source parameters is provided in Table B-1 in Appendix B of this modeling report. In addition, a summary of the modeled short-term and long-term emission rates in this State NAAQS analysis are provided in Table B-2 of Appendix B.

¹ The United States Protection Agency (U.S. EPA) Green Book.

Source: <http://www.epa.gov/oaqps001/greenbk/index.html>, accessed August, 2012.

² Per email from Mr. Joel Stanford, TCEQ, to Ms. Latha Kambham, Trinity Consultants, on February 4, 2013.

³ Code of Federal Regulations, Title 40–Protection of Environment, Part 51, Appendix W, accessed at www.bna.com.

⁴ TCEQ, *Air Quality Modeling Guidelines*, RG-25 (Revised), February 1999.

⁵ Premodeling conference call with TCEQ on February 4, 2013. Attendees: Mr. Jeff Eads and Mr. Bob Castro, TCEQ; Ms. Latha Kambham and Ms. Anna Unruh, Trinity Consultants

⁶ Permit Amendment Application for Permit 7711A submitted on September 28, 2012.

This report contains the following information as described by TCEQ guidance:

- > Plot plan showing the emission sources, building structures, and property line used in the dispersion modeling analyses;
- > Aerial photograph showing the property line and surrounding land use type;
- > A list of emission sources and their corresponding parameters included in the modeling analysis;
- > A detailed description of the methodology used in conducting the air dispersion modeling analyses; and
- > The State NAAQS Analysis;

The air dispersion modeling analysis presented in this report is conducted using the U.S. EPA's AERMOD model (version 12345). All modeling procedures and methods used in this analysis are consistent with current U.S. EPA and the TCEQ *Air Quality Modeling Guidelines*.^{7,8}

The air dispersion modeling analysis estimates the maximum ground-level concentrations due to criteria pollutants from the Dallas Plant. As summarized in Section 7, the analysis demonstrates compliance with the applicable State NAAQS.

⁷ Code of Federal Regulations, Title 40--Protection of Environment, Part 51, Appendix W.

⁸ TCEQ, *Air Quality Modeling Guidelines*, RG-25 (Revised), February 1999.

2. GENERAL AIR QUALITY DISPERSION MODELING APPROACH

This section of the air quality analysis report discusses the air quality dispersion modeling methodologies used to demonstrate compliance with the applicable NAAQS and State Property Line standards.

2.1. STATE NAAQS ANALYSIS

The State NAAQS air quality dispersion modeling analysis conducted in support of the permit amendment application is organized into two major sections for each applicable criteria pollutant: the Significance Analysis and the Full Impacts Analysis. The techniques used in the air quality dispersion modeling analysis are consistent with current TCEQ and U.S. EPA modeling procedures.^{9, 10}

2.1.1. Significance Analysis

In the Significance Analysis, the emissions of CO (1-hour and 8-hour averaging periods), NO₂ (1-hour and annual averaging periods), SO₂ (1-hour, 3-hour, 24-hour, and annual averaging periods), PM₁₀ (24-hour and annual averaging periods) and PM_{2.5} (24-hour and annual averaging periods) from the proposed project at the Dallas Plant were evaluated to determine whether they have the potential for a significant impact upon the area surrounding the proposed facility. Per TCEQ's modeling guidance, all modeled impacts are reported as the highest first high (H1H) modeled concentration.¹¹ The Significance Analysis determines if a complete Full Impacts Analysis is required.

Per U.S. EPA guidance, the Significance Analysis considers the emissions associated *only* with the proposed project to determine whether it will have a significant impact upon the surrounding area. Therefore, only the increase in emissions associated with the boiler replacement project is evaluated in the significance analysis.

As a first step, the modeled maximum ground level concentrations (GLC_{max}) from the significance analysis are compared to the corresponding modeling significance levels (MSLs) to determine whether any modeled ground-level concentrations at any receptor locations are greater than or equal to the MSL (i.e., "significant" receptors).

If the GLC_{max} for each pollutant modeled in the screening approach is less than the corresponding MSLs, the demonstration is complete. If the Significance Analysis reveals that the GLC_{max} for a particular pollutant and averaging period exceeds the applicable MSL, then a State NAAQS Screening Analysis is conducted.

The modeling results for the significance analysis summarized in Section 7 of this report demonstrate that the maximum predicted concentrations of all pollutants for all averaging periods due to emissions from the proposed project at the Dallas Plant are below the MSL. Therefore, a Full Impacts Analysis is not required.

⁹ Code of Federal Regulations, Title 40--Protection of Environment, Part 51, Appendix W, accessed at www.bna.com.

¹⁰ TCEQ, *Air Quality Modeling Guidelines*, RG-25 (Revised), February 1999.

¹¹ Ibid.

2.2. STATE PROPERTY LINE ANALYSIS

As the proposed project at the Dallas Plant will result in increased emissions of SO₂, an air quality dispersion modeling analysis for SO₂ (1-hour) is performed to demonstrate compliance with the state standard for net ground-level concentration of SO₂.

The State Property Line standard for SO₂ is shown in Table 2-1 below. The State Property Line analysis compares the H1H modeled concentration predicted at each receptor based on one year of NWS meteorological data to the applicable State Property Line standard. As summarized in Section 7 of this report, the maximum predicted SO₂ concentration due to emissions from the proposed project at the Dallas Plant is below the State Property Line standard.

Table 2-1. State Property Line Standards

Pollutant	Averaging Period	Standard (µg/m ³)
SO ₂	30-min ¹	1,021 ²

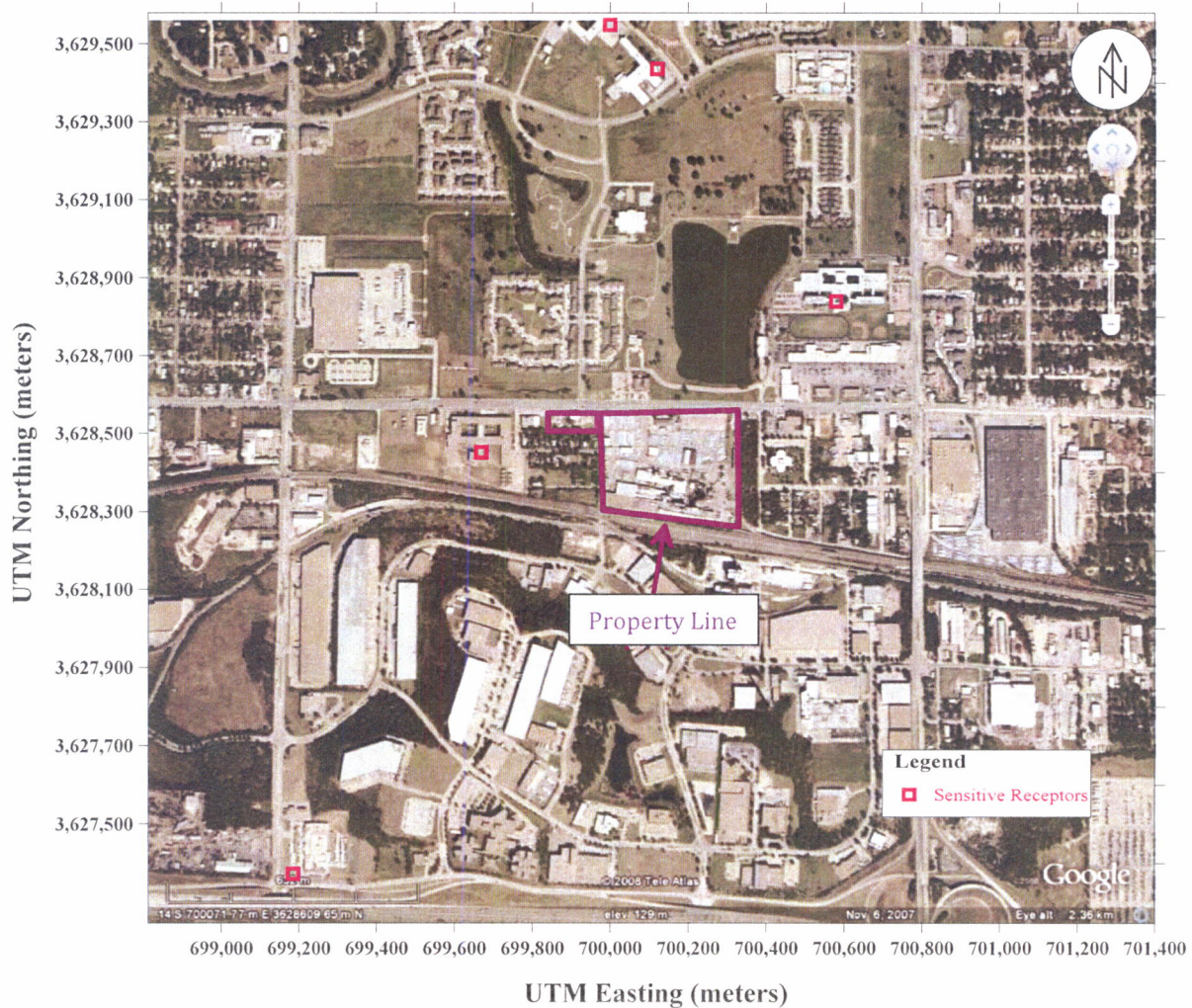
¹ Per TCEQ guidance, the modeled H1H concentration for 1-hour is used to compare the 30-minute averaging SO₂ standard.

² Converted from 0.4 ppm per TCEQ Air Quality Modeling Guidelines, RG-25 (Revised), February 1999, Appendix A.

3. AERIAL PHOTOGRAPH

An aerial photograph of the Dallas Plant is provided in Figure 3-1 and shows the surrounding land use within 3,000 feet from each side of the Dallas Plant property line along with the location of sensitive receptors. As shown in Figure 3-1, the area within 3,000 feet of the Dallas Plant consists primarily of urban, industrial, and residential regions. The referenced Universal Transverse Mercator (UTM) coordinates are in North American Datum 27 (NAD27). The site location is in UTM Zone 14.

Figure 3-1. Aerial Photograph of the GAF Dallas Plant



The figure is an aerial photograph of an industrial park. A red line outlines the 'Property Line'. Various buildings are labeled with codes: BLD 1, BLD 2, BLD 3, BLD 4, BLD 5, BLD 6, BLD 7, BLD 8, BLD 9, BLD 10, BLD 11, BLD 12, BLD 13, BLD 14, BLD 15, BLD 16, BLD 17, BLD 18, BLD 19, BLD 20, BLD 21, BLD 22, BLD 23, BLD 24, BLD 25. There are also labels for 'BLD 100', 'BLD 101', 'BLD 102', 'BLD 103', 'BLD 104', 'BLD 105', 'BLD 106', 'BLD 107', 'BLD 108', 'BLD 109', 'BLD 110', 'BLD 111', 'BLD 112', 'BLD 113', 'BLD 114', 'BLD 115', 'BLD 116', 'BLD 117', 'BLD 118', 'BLD 119', 'BLD 120', 'BLD 121', 'BLD 122', 'BLD 123', 'BLD 124', 'BLD 125', 'BLD 126', 'BLD 127', 'BLD 128', 'BLD 129', 'BLD 130', 'BLD 131', 'BLD 132', 'BLD 133', 'BLD 134', 'BLD 135', 'BLD 136', 'BLD 137', 'BLD 138', 'BLD 139', 'BLD 140', 'BLD 141', 'BLD 142', 'BLD 143', 'BLD 144', 'BLD 145', 'BLD 146', 'BLD 147', 'BLD 148', 'BLD 149', 'BLD 150', 'BLD 151', 'BLD 152', 'BLD 153', 'BLD 154', 'BLD 155', 'BLD 156', 'BLD 157', 'BLD 158', 'BLD 159', 'BLD 160', 'BLD 161', 'BLD 162', 'BLD 163', 'BLD 164', 'BLD 165', 'BLD 166', 'BLD 167', 'BLD 168', 'BLD 169', 'BLD 170', 'BLD 171', 'BLD 172', 'BLD 173', 'BLD 174', 'BLD 175', 'BLD 176', 'BLD 177', 'BLD 178', 'BLD 179', 'BLD 180', 'BLD 181', 'BLD 182', 'BLD 183', 'BLD 184', 'BLD 185', 'BLD 186', 'BLD 187', 'BLD 188', 'BLD 189', 'BLD 190', 'BLD 191', 'BLD 192', 'BLD 193', 'BLD 194', 'BLD 195', 'BLD 196', 'BLD 197', 'BLD 198', 'BLD 199', 'BLD 200', 'BLD 201', 'BLD 202', 'BLD 203', 'BLD 204', 'BLD 205', 'BLD 206', 'BLD 207', 'BLD 208', 'BLD 209', 'BLD 210', 'BLD 211', 'BLD 212', 'BLD 213', 'BLD 214', 'BLD 215', 'BLD 216', 'BLD 217', 'BLD 218', 'BLD 219', 'BLD 220', 'BLD 221', 'BLD 222', 'BLD 223', 'BLD 224', 'BLD 225', 'BLD 226', 'BLD 227', 'BLD 228', 'BLD 229', 'BLD 230', 'BLD 231', 'BLD 232', 'BLD 233', 'BLD 234', 'BLD 235', 'BLD 236', 'BLD 237', 'BLD 238', 'BLD 239', 'BLD 240', 'BLD 241', 'BLD 242', 'BLD 243', 'BLD 244', 'BLD 245', 'BLD 246', 'BLD 247', 'BLD 248', 'BLD 249', 'BLD 250', 'BLD 251', 'BLD 252', 'BLD 253', 'BLD 254', 'BLD 255', 'BLD 256', 'BLD 257', 'BLD 258', 'BLD 259', 'BLD 260', 'BLD 261', 'BLD 262', 'BLD 263', 'BLD 264', 'BLD 265', 'BLD 266', 'BLD 267', 'BLD 268', 'BLD 269', 'BLD 270', 'BLD 271', 'BLD 272', 'BLD 273', 'BLD 274', 'BLD 275', 'BLD 276', 'BLD 277', 'BLD 278', 'BLD 279', 'BLD 280', 'BLD 281', 'BLD 282', 'BLD 283', 'BLD 284', 'BLD 285', 'BLD 286', 'BLD 287', 'BLD 288', 'BLD 289', 'BLD 290', 'BLD 291', 'BLD 292', 'BLD 293', 'BLD 294', 'BLD 295', 'BLD 296', 'BLD 297', 'BLD 298', 'BLD 299', 'BLD 300'. A red arrow points to the 'Property Line'. A north arrow is located in the top right corner.

POOR QUALITY ORIGINAL

5. MODEL SELECTION

This section of the air quality analysis report contains a description of the model selection, meteorological data, terrain, building wake effects, and the receptor inputs that are used in the air dispersion analysis submittal.

5.1. DISPERSION MODELING SELECTION

On November 9, 2005, the U.S. EPA promulgated American Meteorological Society / Environmental Protection Agency Regulatory Model (AERMOD) for adoption into the *Guideline on Air Quality Models (Revised)*. AERMOD was developed to replace the Industrial Source Complex Short-Term Version 3 (ISCST3) model. AERMOD includes a state-of-the-science downwash algorithm and utilizes AERMET, a meteorological data preprocessor that utilizes current planetary boundary layer (PBL) theory to calculate the dispersion coefficients (σ_y and σ_z).¹²

The most current version of the AERMOD model (version 12345) is used in conducting the Significance Analysis for the proposed boiler replacement project at the Dallas Plant. The modeling is performed using the regulatory default option, which includes the following:

- > Stack-tip downwash; and
- > A routine for processing averages when calm wind conditions occur or when meteorological data is missing.

The current version of AERMOD contains algorithms for modeling the effects of aerodynamic downwash on point source emissions due to nearby buildings and structures. In accordance with U.S. EPA requirements, direction-specific building dimensions are used for the Schulman downwash algorithms. The downwash algorithm is discussed in Section 5.4.

5.2. METEOROLOGICAL DATA

The EPA AERMOD program requires meteorological data preprocessed with the AERMET program. Three additional variables are considered when preprocessing the surface and meteorological data for a site. These variables are:

- > Surface roughness;
- > Albedo, and
- > Bowen Ratio.

TCEQ has created preprocessed meteorological data sets using AERMET (version 11059) for use in AERMOD air dispersion modeling. This modeling analysis is performed using preprocessed meteorological data sets obtained from the TCEQ. Preprocessed meteorological data for 2008 was used for the State NAAQS analyses, and State Property Line analysis. The TCEQ data set used is based on surface and upper air observations taken from Dallas/Fort Worth (DFW – National Weather Service [NWS] Station Number 13901). TCEQ has processed the meteorological data set using the Albedo and Bowen Ratio representative of Dallas County.

Each TCEQ-provided data set processed with the AERMET program comes with three different files, each representing a different roughness category:

- > L – low surface roughness (0.05 m)

¹² U.S. EPA, User's Guide for the AMS/EPA Regulatory Model-AERMOD, September 2004.

- > M – medium surface roughness (0.5 m)
- > H – high surface roughness (1.0 m)

Per EPA guidance, the appropriate values for surface roughness length (z_0) should be used in the AERMET meteorological processor to prepare the meteorological data for AERMOD.¹³ The EPA recommended upwind distance for processing the land cover data to determine the effective z_0 for input to AERMET is 1 kilometer (km) relative to the meteorological tower (measurement site). However, for this modeling analysis the TCEQ guidance of using the 1 km distance relative to the application site (i.e., Dallas Plant) is used to process the land cover data.¹⁴ EPA has developed a tool called AERSURFACE (EPA, 2008) that can be used as an aid in determining realistic and reproducible surface characteristic values, including surface roughness.

An analysis is performed using AERSURFACE to confirm the appropriate surface roughness data set to be used in the air dispersion modeling analysis. An AERSURFACE run using a 1 km radius circle centered at the facility is performed for the annual period. AERSURFACE requires the input of land cover data from U. S. Geological Survey (USGS) National Land Cover Data 1992 archives (NLCD92), which is used to determine the land cover types for the user-specified location.¹⁵ There is more recent NLCD available than NLCD92, but the newer data is not compatible with the current version of AERSURFACE. In this modeling analysis, the NLCD92 is downloaded from the USGS Seamless Data Server (SDS) through the following website: <http://nationalmap.gov/viewer.html>.¹⁶

The latest version of AERSURFACE (version 13016) is used to obtain a surface roughness estimate. The resulting surface roughness estimate is 0.40 meters. Per TCEQ guidance, since this value is between 0.1 meters and 0.7 meters, the meteorological data with medium surface roughness is used in the modeling analysis.¹⁷ The electronic copy of the AERSURFACE output file and USGS NLCD92 map is provided on the attached CD in Section 8 of this report.

5.3. TERRAIN

The base elevation in the area of Dallas Plant is approximately 130 meters above mean sea level. The terrain elevation for each modeled building, source, and receptor is determined using USGS National Elevation Dataset (NED). The USGS NED 1/3 arc second (approximately 10-meter resolution) file is used. The terrain height for each modeled receptor is calculated using the AERMOD terrain processor (AERMAP version 11103). AERMAP computes the terrain height and hill height scale from the digital terrain elevations surrounding the modeled receptors and terrain height for modeled sources and buildings.

In addition to terrain elevation, an additional parameter called the hill height scale is required for each receptor to feed AERMOD's terrain modeling algorithms. AERMOD computes the impact at a receptor as a weighted interpolation between horizontal and terrain-following states using a critical dividing streamline approach. This scheme assumes that part of the plume mass will have enough energy to ascend and traverse over a terrain feature and the remainder will impinge and traverse around a terrain feature under certain meteorological conditions. The hill height scale is computed by the AERMAP terrain preprocessor for each receptor as a measure of the one terrain feature in the modeling domain that would have the greatest effect on plume behavior at that receptor.

¹³ EPA, AERMOD Implementation Guide, January 9, 2008.

¹⁴ Electronic communication between Mr. Robert Opiela, TCEQ, and Trinity Consultants staff, May 20, 2008.

¹⁵ AERSURFACE User's Guide, EPA-454/B-08-001, January 2008.

¹⁶ At the time of the analysis, the valid URL was <http://seamless.usgs.gov/>.

¹⁷ <http://landcover.usgs.gov/ftpdownload.php>, Date accessed: January 28, 2013.

The hill height scale does not represent the critical dividing streamline height itself, but supplies the computational algorithms with an indication of the relative relief within the modeling domain for the determination of the critical dividing streamline height for each hour of meteorological data.

According to Section 2.2.1 of EPA guidance, the NED array boundary for AERMAP must include all terrain features that exceed a 10 percent elevation slope from any given receptor in order to properly calculate the hill height scale at each receptor.¹⁸ The domain for the hill height analysis is set to at least the minimum equal to that required for proper handling of elevation slope.

5.4. BUILDING WAKE EFFECTS (DOWNWASH)

The emission source for the proposed project at the Dallas Plant considered in this analysis is evaluated in terms of its proximity to nearby structures. The purpose of this evaluation is to determine if stack discharge might become caught in the turbulent wakes of these structures. Wind blowing around a building creates zones of turbulence that are greater than if the building was absent. AERMOD incorporates the Plume Rise Model Enhancements (PRIME) algorithms for estimating enhanced plume growth and restricted plume rise for plumes affected by building wakes.¹⁹

U.S. EPA has promulgated stack height regulations that restrict the use of stack heights in excess of "Good Engineering Practice" (GEP) in air dispersion modeling analyses. Under these regulations, that portion of a stack in excess of the GEP height is generally not creditable when modeling to determine source impacts. This essentially prevents the use of excessively tall stacks to reduce the ground-level pollutant concentrations. The stack height not subject to the effects of downwash, called the GEP stack height, is defined by the following formula:

$$H_{GEP} = H + 1.5L$$

Where:

H_{GEP} = GEP stack height,

H = structure height, and

L = lesser dimension of the structure (height or projected width).

This equation is limited to stacks located within 5L of a structure. Stacks located at a distance greater than 5L are not subject to the wake effects of the structure. If there is more than one stack at a given facility, the above equation must be successively applied to each stack. If more than one structure is involved, the equations must also be successively applied to each structure. In general, the lowest GEP stack height for any source is 65 meters by default.²⁰

Direction-specific building dimensions and the dominant downwash structure parameters used as inputs to the dispersion models are determined using the *BREEZE@* BPIPP software, developed by Trinity Consultants, Inc. This software incorporates the algorithms of the U.S. EPA-sanctioned Building Profile Input Program with PRIME enhancement (BPIP-PRIME), version 04274.²¹ BPIP-PRIME is designed to incorporate the concepts and procedures expressed in the GEP Technical Support document, the Building Downwash Guidance document, and other related documents.

¹⁸ U.S. EPA, Office of Air Quality Planning and Standards, *User's Guide for the AMS/EPA Regulatory Model – AERMOD*, Research Triangle Park, North Carolina, EPA-454/B-03-001, September, 2004.

¹⁹ L.L. Schulman, D.G. Strimaitis, and J.S. Scire, Development and Evaluation of the Prime Plume Rise and Building Downwash Model, *AWMA*, 50:378-390, 2000.

²⁰ 40 CFR §51.100(ii)

²¹ U.S. Environmental Protection Agency, *User's Guide to the Building Profile Input Program*, Research Triangle Park, NC, EPA-454/R-93-038.

The output from the BPIP-PRIME downwash analysis lists the names and dimensions of the structures generating wake effects and the locations and heights of the affected emission sources (i.e., stacks). In addition, the output contains a summary of the dominant structure for each emission unit (considering all wind directions) and the actual building height and projected widths for all wind directions. This information is then incorporated into the data input files for the AERMOD air dispersion model.

The height for the structures considered in the downwash analysis is provided in Table 5-1 below. The location and dimensions of the modeled downwash structures are provided in the plot plan provided in Section 4 of this report.

Table 5-1. Modeled Downwash Structure Heights for the GAF Dallas Plant

Modeled Building ID	Description	Height (m)
BLD13	Building 13	16.41 ✓
BLD14	Instrument Room	2.7 ✓
BLD15	Preheater Building	2.42 ✓
BLD16	Incinerator	4.02 ✓
BLD17	Credit Union	3.86 ✓
BLD18A	Building 18A	15.07 ✓
BLD18B	Building 18B	20.74 ✓
BLD19	Stillyard Office	3.39 ✓
BLD2	Building 2	7.64 ✓
BLD21	Building 2 Tier 2	8.79 ✓
BLD21A	Building 21A	6.55 ✓
BLD22	Building 22	16.33 ✓
BLD25	Building 25	7.34 ✓
BLD29	New Warehouse	7.92 ✓
BLD2A	Building 2A	6.4 ✓
BLD2B	Building 2B	6.55 ✓
BLD3	Building 3	7.71 ✓
BLD30	Corporate Engineering Office (old)	7.15 ✓
BLD31	Old Bilbo Garage	6.36 ✓
BLD5	Building 5	7.01 ✓
BLD50	CARE Center	8.84 ✓
BLD6	Building 6	8.52 ✓
BLD7	Building 7	5.97 ✓
BLD9A	Building 9A	4.27 ✓
BLDT1	Tank T-1	4.04 ✓
BLDT2	Tank T-2	4.04 ✓
OFR	Old Fire Reservoir	4.32 ✓
BLD8	Line 1 Stabilizer Use Bin	12.18 ✓
BLD23	Limestone Bin A	19.54 ✓
BLD24	Limestone Bin B	19.54 ✓
BLD27	Line 1 Filler	12.83 ✓
BLD28	Born Heater	20.92 ✓
BLD13	Building 13	16.41 ✓

Table 5-1. Modeled Downwash Structure Heights for the GAF Dallas Plant (Continued)

Modeled Building ID	Description	Height (m)
BLDT8	Tank T-8	8.42 ✓
BLDT9	Tank T-9	8.42 ✓
BLDT10	Tank T-10	10.83 ✓
BLDT13	Tank T-13	16.49 ✓
BLDT14	Tank T-14	18.42 ✓
BLDT15	Tank T-15	8.42 ✓
40 ✓ BLDT80	Tank T-80 Diesel Storage Tank	7.55 ✓
BLDT26	Blowstill T-26	15.63 ✓
BLDT110	Tank T-110	10.04 ✓
BLDT120	Tank T-120	10.04 ✓
BLDT41	Waste Oil Tank (Stillyard)	2.78 ✓
BLDT40	Oil Knockout Tank (Stillyard)	4.11 ✓
✓ BLD6A	Building 6A	8.81 ✓
✓ BLD20	Guard House	2.9 ✓

5.5. RECEPTOR GRIDS

In the air quality dispersion modeling analysis, the modeled ground-level concentrations are determined within five main Cartesian receptor grids. These five grids cover a region extending at least 10 km beyond the proposed Dallas Plant fenceline/property line. The grids are defined as follows:

1. The "property line grid" is a discrete receptor grid with the receptors spaced at 25 m intervals along the Dallas Plant fenceline/property line.
2. The "tight grid" contains 25-m spaced receptors extending at least 300 m from the fenceline/property line, excluding receptors within the property line grid.
3. The "fine grid" contains 100-m spaced receptors extending approximately 1 km from the fenceline/property line, excluding the receptors within the property line and tight grids.
4. The "medium grid" contains 500-m spaced receptors extending approximately 5 km from the fenceline/property line, excluding the receptors within the property line, tight, and fine grids.
5. The "coarse grid" contains 1,000-m spaced receptors extending at least 10 km from the property line, excluding the receptors within the property line, tight, fine, and medium grids.

6. MODELING EMISSIONS INVENTORY

The following sections discuss the methodology used to represent the increased emissions from the emission source (EPN) affected by the boiler replacement at the Dallas Plant.

6.1. MODELED EMISSION RATES FOR EPN BLR 5

The September 28, 2012 NSR permit amendment application explains the methodology for calculating the emissions. Table 6-1 includes the summary of currently permitted emission rates, proposed emission rates and a net change in emission rates. As shown in this table, the proposed project results in an increase in both short-term and long-term emissions for all criteria pollutants. A Significance Analysis is conducted for the project increases and the modeled emission rates are confirmed with the TCEQ.²² Source parameters for the boiler were submitted with the air permit amendment application. A revised Table 1(a) is submitted in Appendix A of this report. The boiler is modeled as a point source, and is proposed to be operated 8,760 hours per year.

As there is only one source associated with the project, a conservative screening analysis approach, referred to as the ratio technique, as described below²³:

1. The EPN is modeled with a unit emission rate of one pound per hour (lb/hr).
2. The maximum ground level concentration in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) per unit emission rate in lb/hr ("normalized impact") is obtained for the 1-hour, 3-hour, 8-hour, 24-hour, and annual averaging periods using AERMOD. The AERMOD modeled normalized impacts for each averaging period that is evaluated for State NAAQS Analysis are shown in Table 7-1 in Section 7 of this report.
3. The normalized impact for each averaging period obtained in step 2 is multiplied by the EPN's corresponding proposed short-term (hourly) and long-term (tons per year [tpy]) emission rate in terms of (lb/hr) to obtain the maximum ground level concentration (GLC_{max}) for each applicable averaging period.
4. Tier 2 of the Ambient Ratio Method (0.8) is applied to the modeled 1-hour NO_x results to yield NO_2 results per EPA memo dated March 1, 2011. Ambient Ratio Method (0.75) is applied to the modeled annual NO_x results.

Table 7-1 in Section 7 shows the proposed hourly emissions and the calculation of the total GLC_{max} using the ratio modeling technique for $\text{PM}_{2.5}$ (24-hour and annual), PM_{10} (24-hour and annual), CO (1-hour and 8-hour), NO_2 (1-hr and annual), and SO_2 (1-hour, 3-hour, 24-hour, and annual). Since there is only one source associated with the project, the results of this screening analysis are equivalent to those that would be obtained if each averaging period for each pollutant were modeled separately.

²² Modeled emission rates confirmed with Mr. Joel Stanford, TCEQ, via email communication by Ms. Latha Kambham on February 4, 2013.

²³ TCEQ, *Air Quality Modeling Guidelines*, RG-25 (Revised), February 1999, Section 3.3.1.

Table 6-1. Currently Permitted and Proposed Hourly and Annual Emissions for the Standby Boiler Vent (EPN: BLR5)

Scenario	FIN	EPN	Source Name	Heat Input Rate ^{6,7} (MMBtu/hr)	Annual Hours of Operation ^{6,7} (hr/yr)	Maximum Hourly Emissions (lb/hr)					Annual Emissions (tpy)				
						CO	NO _x	PM/PM ₁₀ /PM _{2.5}	SO ₂	VOC	CO	NO _x	PM/PM ₁₀ /PM _{2.5}	SO ₂	VOC
Currently Permitted ¹	BLR5	BLR5	Standby Boiler Vent	8.00	2,280	0.66	0.78	0.06	<0.01	0.04	0.75	0.89	0.07	<0.01	0.05
Permanent Boiler Change ²	BLR5	BLR5	Boiler Vent	21.00	8,760	1.73	0.82	0.16	0.01	0.11	7.58	3.59	0.70	0.04	0.48
Emission Increase	BLR5	BLR5	Boiler Vent			1.07	0.04	0.10	<0.01	0.07	6.83	2.70	0.63	0.04	0.43

¹ The Standby Boiler (EPN BLR5) is currently permitted under NSR Permit No. 7711A with a permit alteration approved on January 20, 2012 with a fuel consumption limitation of 18.02 MMscf/yr which equates to an 8.0 MMBtu/hr heat input over 2,280 hr/yr.

² The Permanent Boiler will be the same unit as the Standby Boiler that is currently permitted, however GAF is proposing to change the burner on the boiler from a maximum heat input of 19 MMBtu/hr to 21 MMBtu/hr with 8,760 hours of operation per year.

7. MODELING RESULTS

The maximum modeled ground-level concentrations obtained using the approach described in Sections 2 and 6 demonstrating compliance with applicable standards for each pollutant is presented in this section.

7.1. SIGNIFICANCE ANALYSIS

In the Significance Analysis for the proposed boiler replacement project at the Dallas Plant, the resulting maximum predicted concentrations are compared to their respective MSLs. The maximum predicted H1H concentrations based on a unit emission rate (1 lb/hr or 0.126 grams per second) are provided below:

- > 1-hour: 53.55 $\mu\text{g}/\text{m}^3$
- > 3-hour: 36.66 $\mu\text{g}/\text{m}^3$ 31.66
- > 8-hour: 24.43 $\mu\text{g}/\text{m}^3$
- > 24-hour: 11.71 $\mu\text{g}/\text{m}^3$
- > Annual: 1.52 $\mu\text{g}/\text{m}^3$

As discussed Section 6.1, the resulting concentrations from the unit emission rate analysis are multiplied with the corresponding emission increases for pollutant and each averaging period. The results of the significance analysis are summarized in Table 7-1.

Table 7-1. Significance Analysis Modeling Results

Pollutant	Averaging Period	Met Year	Maximum Modeled Concentration ^{1,2,3} ($\mu\text{g}/\text{m}^3$)/(lb/hr)	Emission Rate ⁴ (lb/hr)	Adjusted Modeled Concentration ⁵ ($\mu\text{g}/\text{m}^3$)	Modeling Significance Level (MSL) ($\mu\text{g}/\text{m}^3$)	H1H < MSL
PM ₁₀	24-hour	2008	11.71 ✓	0.10	1.17	5	Yes
	Annual	2008	1.52 ✓	0.14	0.22	1	Yes
PM _{2.5}	24-hour	2008	11.71 ✓	0.10	1.17	1.2	Yes
	Annual	2008	1.52 ✓	0.14	0.22	0.3	Yes
CO	1-hour	2008	53.55 ✓	1.07	57.30	2,000	Yes
	8-hour	2008	24.43 ✓	1.07	26.14	500	Yes
NO ₂ ^(a)	1-hour	2008	42.84 ✓	0.04	1.71	7.5	Yes
	Annual	2008	1.14 ✓	0.62	0.70	1	Yes
SO ₂	1-hour	2008	53.55 ✓	0.01	0.54	7.8	Yes
	3-hour	2008	31.66 ✓	0.01	0.32	25	Yes
	24-hour	2008	11.71 ✓	0.01	0.12	5	Yes
	Annual	2008	1.52 ✓	0.01	0.014	1	Yes

¹ Tier 2 of the Ambient Ratio Method (0.8) is applied to the modeled 1-hour NOx results to yield NO2 results per EPA memo dated March 1, 2011. Ambient Ratio Method (0.75) is applied to the modeled annual NOx results.

² Unit emission rate was modeled, so maximum modeled concentration corresponds to the H1H value for an emission rate of 1 lb/hr.

³ The maximum modeled concentration occurs at UTM Zone 14 Coordinates 700,265 m East and 3,628,262 m North.

⁴ The short term emission rate for 1-hr, 3-hr, 8-hr, and 24-hr averaging periods represents the potential increase in hourly emission rate. Since the boiler is proposed to be authorized to operate 8,760 hours per year, the annual emission rate is averaged over the year.

⁵ The adjusted modeled concentration is equal to the maximum modeled concentration multiplied by the emission rate.

As shown in Table 7-1, no further analysis is required for PM₁₀, PM_{2.5}, NO₂, CO, and SO₂ since the maximum predicted concentrations are all less than the corresponding MSLs.

7.2. STATE PROPERTY LINE ANALYSIS

SO₂ emissions increases from the proposed boiler replacement project at the Dallas Plant are modeled to demonstrate compliance with the State Property Line standard for SO₂. The results of the State Property Line Analysis are summarized in Table 7-2.

Table 7-2. State Property Line Analysis Results

290-20.4

Pollutant	Averaging Period	Year	UTM Coordinate		Maximum Modeled Concentration ^a (µg/m ³)	TCEQ Standards (µg/m ³)	Total Concentration < TCEQ Standard
			East (m)	North (m)			
SO ₂ ^b	1-hour	2008	700,265	3,682,262	0.54 ✓	1,021 <i>20.4</i>	Yes

^a All concentrations are H1H.

^b Per TCEQ guidance, maximum modeled ground-level concentration for the 1-hour averaging period is used for comparison with the 30-minute standard.

Since the maximum predicted concentration is less than the State Property Line standard as shown in Table 7-2, compliance with this standard is demonstrated and no further analysis is required.

2 sig. level

8. ELECTRONIC FILES

All of the air quality dispersion modeling analysis electronic data files used to generate the results presented in this report are provided in the attached CD for TCEQ review. These electronic data files include the following:

- > All AERMOD input, output, and plot data files
- > All downwash input and output files
- > Meteorological files
- > AERSURFACE files
- > Files associated with updating the NLCD92 land cover data
- > Electronic copy of the Air Quality Analysis

The following table summarizes the electronic files included in the attached CD.

Table 8-1. Summary of Electronic Files

File Name	Associated Files	File Description
BLR_Unit_ER_08.zip ✓	Input File (*.ami) Output File (*.aml) Plot files (*.plt)	Significance Analysis
Dallas_DFWFWD08M.PFL ✓	N/A	Meteorological Profile/Upper Air File for 2008
Dallas_DFWFWD08M.SFC ✓	N/A	Meteorological Surface File for 2008
Property_Line.zip .	N/A	Property line boundary files
BPIP.zip ✓	N/A	BPIP (Downwash)
Final GAF Modeling Report (2013-0214).pdf ✓	N/A	Air Quality Dispersion Modeling Analysis Report
AERSURFACE.zip ✓	N/A	AERSURFACE output files, NLCD92 map

APPENDIX A
TCEQ Table 1(a)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Table 1(a) Emission Point Summary

Date	2/14/2013	Permit No.:	7711A	Regulated Entity No.:	100788959
Area Name:	GAF Materials Corporation, Dallas Facility			Customer Reference No.:	602717464

Review of applications and issuance of permits will be expedited by supplying all necessary information requested on this table

AIR CONTAMINANT DATA					
1. Emission Point			2. Component of Air Contaminant Name	3. Air Contaminant Emission Rate	
(A) EPN	(B) FIN	(C) NAME		Pounds per Hour (A)	TPY (B)
HTR3	HTR3	T-1 Laminating Adhesive Bulk Storage Tank Heater Vent	NO _x	0.05	0.22
			SO ₂	0.01	0.01
			PM ₁₀	0.01	0.02
			CO	0.04	0.18
			VOC	0.01	0.01
HTR4	HTR4	T-2 Laminating Adhesive Bulk Storage Tank Heater Vent	NO _x	0.05	0.22
			SO ₂	0.01	0.01
			PM ₁₀	0.01	0.02
			CO	0.04	0.18
			VOC	0.01	0.01
HTR5	HTR5	Asphalt Heater for T-14 and T-15 coating Asphalt Storage and Coating Feed Loop	NO _x	0.10	0.43
			SO ₂	0.01	0.01
			PM ₁₀	0.01	0.03
			CO	0.08	0.36
			VOC	0.01	0.02
BLR5	BLR5	Boiler Vent	NO _x	0.82	3.59
			SO ₂	0.01	0.04
			PM ₁₀	0.16	0.70
			CO	1.73	7.58
			VOC	0.11	0.48

TCEQ-10153 [Revised 04/08] Table 1(a)

This form is for use by sources subject to air quality permit requirements and may be revised periodically. [APDG 5178 v5]

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Table 1(a) Emission Point Summary

Date	2/14/2013	Permit No.:	7711A	Regulated Entity No.:	100788959
Area Name:	GAF Materials Corporation, Dallas Facility			Customer Reference No.:	602717464

Review of applications and issuance of permits will be expedited by supplying all necessary information requested on this table

AIR CONTAMINANT DATA					
1. Emission Point			2. Component of Air Contaminant Name	3. Air Contaminant Emission Rate	
(A) EPN	(B) FIN	(C) NAME		Pounds per Hour (A)	TPY (B)
8 8A	TO1 8A	Thermal Oxidizer Exhaust Stack	NO _x	1.90	8.31
			SO ₂	29.35	128.55
		Thermal Oxidizer Exhaust thru Waste Heat Boiler Stack	PM ₁₀	2.62	11.46
			CO	11.34	49.65
			VOC	0.09	0.37
WHBLR 1	WHBLR 1	Waste Heat Recovery Boiler Natural Gas Burner Side	NO _x	0.47	2.06
			SO ₂	0.01	0.04
			PM ₁₀	0.11	0.48
			CO	1.24	5.43
			VOC	0.08	0.35
CFL	CFL	Coalescing Filter Mist Elimination Systems (to control emissions from the Line 1 and Line 3 Asphalt Coaters) with ESP as backup	PM ₁₀	0.63	2.76
			VOC	5.76	25.23
1-1	1-1	Line 1 Stabilizer Storage and Heater Baghouse Stk	PM ₁₀	0.23	1.01
1-3	1-3	Line 1 Stabilizer Use Bin Baghouse Stack	PM ₁₀	0.03	0.13

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Table 1(a) Emission Point Summary

Date	2/14/2013	Permit No.:	7711A	Regulated Entity No.:	100788959
Area Name:	GAF Materials Corporation, Dallas Facility			Customer Reference No.:	602717464

Review of applications and issuance of permits will be expedited by supplying all necessary information requested on this table

AIR CONTAMINANT DATA					
1. Emission Point			2. Component of Air Contaminant Name	3. Air Contaminant Emission Rate	
(A) EPN	(B) FIN	(C) NAME		Pounds per Hour (A)	TPY (B)
1-4	1-4	Line 1 Surfacing Section Dust Collector No. 1 Stack	PM ₁₀	0.59	2.58
1-5	1-5	Line 1 Surfacing Section Dust Collector No. 2 Stack	PM ₁₀	0.59	2.58
1-6	1-6	Line 1 Surfacing Section Dust Collector No. 3 Stack	PM ₁₀	0.59	2.58
COOL1 (total 3 stks)	COOL1 (total 3 stks)	Line 1 Cooling Section	PM ₁₀	8.52	37.30
			VOC	1.65	7.23
25	25	Sand Application Baghouse	PM ₁₀	1.50	6.57
26A	26A	Stabilizer Storage Baghouse A	PM ₁₀	0.15	0.70
26B	26B	Stabilizer Storage Baghouse B	PM ₁₀	0.29	1.26
27	27	Stabilizer Heater Baghouse	PM ₁₀	0.09	0.40
28	28	Asphalt Heater	NO _x	0.59	2.60
			SO ₂	0.004	0.02
			PM ₁₀	0.04	0.20
			CO	0.50	2.20
			VOC	0.03	0.10
FUG1	FUG1	Plantwide Fugitive Emissions	PM ₁₀	0.91	3.97
			VOC	0.43	1.88

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Table 1(a) Emission Point Summary

Date	2/14/2013	Permit No.:	7711A	Regulated Entity No.:	100788959
Area Name:	GAF Materials Corporation, Dallas Facility			Customer Reference No.:	602717464

Review of applications and issuance of permits will be expedited by supplying all necessary information requested on this table

AIR CONTAMINANT DATA					
1. Emission Point			2. Component of Air Contaminant Name	3. Air Contaminant Emission Rate	
(A) EPN	(B) FIN	(C) NAME		Pounds per Hour (A)	TPY (B)
COOL3 (total 3 stks)	COOL3 (total 3 stks)	Line 3 Cooling Section	PM ₁₀	6.74	29.52
			VOC	2.76	12.09
HTR6	HTR6	Line 3 Stabilizer Thermal Fluid Heater Vent	NO _x	0.60	2.58
			SO ₂	0.01	0.02
			PM ₁₀	0.05	0.20
			CO	0.49	2.16
			VOC	0.03	0.14

EPN = Emission Point Number
 FIN = Facility Identification Number

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Table 1(a) Emission Point Summary

Date	2/14/2013	Permit No.:	7711A	Regulated Entity No.:	100788959
Area Name:	GAF Materials Corporation, Dallas Facility			Customer Reference No.:	602717464

Review of applications and issuance of permits will be expedited by supplying all necessary information requested on this table

AIR CONTAMINANT DATA			EMISSION POINT DISCHARGE PARAMETERS										
1. Emission Point			4. UTM Coordinates of Emission Point			5. Building Height (Feet)	6. Height Above Ground (Feet)	7. Stack Exit Data			8. Fugitives		
(A) EPN	(B) FIN	(C) NAME	Zone	East (Meters)	North (Meters)			(A) Diameter (Feet)	(B) Velocity (fps)	(C) Temperature (°F)	(A) Length (F)	(B) Width (F)	(C) Axis Degrees
HTR3	HTR3	T-1 Laminating Adhesive Bulk Storage Tank Heater Vent	14	700,204	3,628,338		22.04	1.00	18.00	200			
HTR4	HTR4	T-2 Laminating Adhesive Bulk Storage Tank Heater Vent	14	700,204	3,628,334		22.04	1.00	18.00	200			
HTR5	HTR5	Asphalt Heater for T-14 and T-15 coating Asphalt Storage and Coating Feed Loop	14	700,217	3,628,331		29.68	2.00	30.00	570			
BLR5	BLR5	Boiler Vent	14	700,217	3,628,372		45	1.97	18.25	444			
8	TO1	Thermal Oxidizer Exhaust Stack	14	700,217	3,628,363		36.99	2.03	182.24	1460			
8A	8A	Thermal Oxidizer Exhaust thru Waste Heat Boiler Stack	14	700,218	3,628,365		35.87	3.94	48.38	583			
WHBLR 1	WHBLR 1	Waste Heat Recovery Boiler Natural Gas Burner Side	14	700,218	3,628,366		36	2.00	14.73	410			
CFL	CFL	Coalescing Filter Mist Elimination Systems (to control emissions from the Line 1 and Line 3 Asphalt Coaters) with ESP as backup	14	700,178	3,628,333		40.77	2.40	32.14	103			
1-1	1-1	Line 1 Stabilizer Storage and Heater Baghouse Stk	14	700,151	3,628,387		44.1	0.80	92.00	96			
1-3	1-3	Line 1 Stabilizer Use Bin Baghouse Stack	14	700,157	3,628,355		43.96	0.84	92.00	200			
1-4	1-4	Line 1 Surfacing Section Dust Collector No. 1 Stack	14	700,121	3,628,341		23.53	2.21	123.00	76			
1-5	1-5	Line 1 Surfacing Section Dust Collector No. 2 Stack	14	700,125	3,628,341		23.53	2.21	92.00	76			
1-6	1-6	Line 1 Surfacing Section Dust Collector No. 3 Stack	14	700,128	3,628,341		23.53	2.21	123.00	76			
COOL1 (total 3 stks)	COOL1 (total 3 stks)	Line 1 Cooling Section	14	700,143	3,628,349		64.27	5.00	32.00	84			
25	25	Sand Application Baghouse	14	700,190	3,628,305		61.23	3.90	65.00	100			
26A	26A	Stabilizer Storage Baghouse A	14	700,214	3,628,310		73.35	0.65	59.00	Ambient			
26B	26B	Stabilizer Storage Baghouse B	14	700,221	3,628,309		73.35	0.65	59.00	Ambient			
27	27	Stabilizer Heater Baghouse	14	700,190	3,628,315		37.08	1.32	35.00	200			
28	28	Asphalt Heater	14	700,242	3,628,344		68.63	2.00	30.00	700			
FUG1	FUG1	Plantwide Fugitive Emission:	14	700,160	3,628,400		--	--	--	--	1048.56	800.52	--
COOL3 (total 3 stks)	COOL3 (total 3 stks)	Line 3 Cooling Section	14	700,180	3,628,310		73	5.00	32.00	84			
HTR6	HTR6	Line 3 Stabilizer Thermal Fluid Heater Vent	14	700,152	3,628,368		39.13	3.00	30.00	700			

EPN = Emission Point Number

FIN = Facility Identification Number

TCEQ-10153 [Revised 04/08] Table 1(a)

This form is for use by sources subject to air quality permit requirements and may be revised periodically. [APDG 5178 v5]

APPENDIX B

Modeled Emission Rates and Stack Parameters for EPN BLR5

Table B-1 Modeled Source Parameters

EPN	Model ID	Description	Zone	East	North	Release Height		Modeled Source Diameter		Modeled Source Velocity		Modeled Source Temperature	
				(m)	(m)	(ft)	(m)	(ft)	(m)	(ft/s)	(m/s)	(°F)	(K)
BLR5	BLR5	Boiler Vent	14	700,217	3,628,372	45	13.72	1.97	0.6	18.25	5.56	444	502.04

Table B-2 Modeled Emission Rates

EPN	Model ID	Description	Maximum Hourly Emissions (lb/hr)					Annual Emissions (tpy)				
			CO	NO _x	PM/PM ₁₀ /PM _{2.5}	SO ₂	VOC	CO	NO _x	PM/PM ₁₀ /PM _{2.5}	SO ₂	VOC
BLR5	BLR5	Boiler Vent	1.07	0.04	0.10	0.01	0.07	6.83	2.70	0.63	0.04	0.43

Joel Stanford

From: Latha Kambham <LKambham@trinityconsultants.com>
Sent: Friday, May 24, 2013 11:36 AM
To: Joel Stanford
Cc: Lele Bao
Subject: RE: Building Materials Corporation

Joel,

I confirmed the revisions with the site and they are okay with the changes and agreed that it is not adding any new/more stringent requirements than what they are already doing.

Since it is submitted for signature on May 29th, we hope there will be no additional changes!

Thanks and have a great Memorial Day weekend!
Latha

Latha Kambham, Ph.D. | Senior Consultant | lkambham@trinityconsultants.com
Trinity Consultants | 12770 Merit Dr, Ste 900 | Dallas, TX 75251
Office: (972) 661-8100 | Fax: (972) 385-9203

From: Joel Stanford <joel.stanford@tceq.texas.gov>
To: Latha Kambham <LKambham@trinityconsultants.com>
Date: 05/23/2013 09:11 AM
Subject: RE: Building Materials Corporation

Ok, thanks Latha!

From: Latha Kambham [<mailto:LKambham@trinityconsultants.com>]
Sent: Thursday, May 23, 2013 8:44 AM
To: Joel Stanford
Cc: Lele Bao
Subject: Re: Building Materials Corporation

Joel,

I definitely understand and I have seen this language in recently issued permits. So, it makes sense to bring the permit up-to-date.

I do not have any comments on the revisions, but I am confirming this with the Dallas Plant to ensure they are okay with these changes. I will let you know as soon as I hear from the Plant.

Thanks,
Latha

Latha Kambham, Ph.D. | Senior Consultant | lkambham@trinityconsultants.com
Trinity Consultants | 12770 Merit Dr, Ste 900 | Dallas, TX 75251
Office: (972) 661-8100 | Fax: (972) 385-9203

From: Joel Stanford <joel.stanford@tceq.texas.gov>
To: "Latha Kambham (LKambham@trinityconsultants.com)" <LKambham@trinityconsultants.com>
Date: 05/22/2013 11:32 AM
Subject: Building Materials Corporation

Hi Latha,

After discussions with my team leader, we'd like to fix a couple of *other* outstanding issues that are in the permit. When last amended, the permit engineer neglected to include conditions relating to the baghouses and dust collectors. Additionally, despite new language being available for the opacity conditions it wasn't updated at that time either. We can update those as part of this project. It's currently slated for signature on the 29th, and if I received a response on this today (or even tomorrow) it would remain dated for the 29th. We can't force this on the company, but we do recommend it in terms of the permit being complete and up to date.

The intent on the opacity conditions remains the same, and the new language is not more restrictive. It reflects the same language put into any permit which requires an opacity condition. No trained opacity reader is required to be on staff. Anyone can do the observations.

Also, the conditions relating to the baghouses and dust collectors are not adding a restriction, but rather placing representations into the permit.

It's frustrating to keep on running into these issues, but I guess better to catch them now and modernize the permit fully while we have it open.

I have attached yet another draft – this time with the new conditions in red for easier review. No changes have been made to the draft MAERT, but I've included it for your reference.

Thanks much for understanding,

Joel Stanford
Air Permits Division

Mechanical/Agricultural Section
Phone: (512) 239-0270
Joel.Stanford@tceq.texas.gov

[attachment "CND-7711A Building Materials Corporation of America (CAMD-MSS).doc" deleted by Latha Kambham/Trinity Consultants] [attachment "MRT-7711A Building Materials Corporation of America (CAMD-MSS).docx" deleted by Latha Kambham/Trinity Consultants]

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Joel Stanford

From: Latha Kambham <LKambham@trinityconsultants.com>
Sent: Thursday, May 16, 2013 3:00 PM
To: Joel Stanford
Cc: Lele Bao
Subject: RE: Building Materials Corporation - CAM

32-46-46
-96-51-48

Joel,

The new special conditions look good to us and GAF. Please let us know when the permit is signed by the Section Manager, so I can let GAF know to look out for the permit in their mail.

Thank you very much for your help with this item!

Latha

Latha Kambham, Ph.D. | Senior Consultant | lkambham@trinityconsultants.com
Trinity Consultants | 12770 Merit Dr, Ste 900 | Dallas, TX 75251
Office: (972) 661-8100 | Fax: (972) 385-9203

From: Joel Stanford <joel.stanford@tceq.texas.gov>
To: Latha Kambham <LKambham@trinityconsultants.com>
Date: 05/15/2013 02:19 PM
Subject: RE: Building Materials Corporation - CAM

Here is a copy of the conditions with the new language inserted (under Compliance Assurance Monitoring). No new recordkeeping condition is needed due to SC 34 H.

From: Latha Kambham [<mailto:LKambham@trinityconsultants.com>]
Sent: Monday, May 13, 2013 2:40 PM
To: Joel Stanford
Cc: Lele Bao
Subject: Re: Building Materials Corporation - CAM

Joel,

I apologize for the delay in responding to this email. We finally received a response from the client. They agree with your recommendations. Can you please provide the Draft Special Conditions, once the permit is revised?

Thanks,
Latha

Latha Kambham, Ph.D. | Senior Consultant | lkambham@trinityconsultants.com
Trinity Consultants | 12770 Merit Dr, Ste 900 | Dallas, TX 75251
Office: (972) 661-8100 | Fax: (972) 385-9203

From: Joel Stanford <joel.stanford@tceq.texas.gov>
To: "Latha Kambham (LKambham@trinityconsultants.com)" <LKambham@trinityconsultants.com>
Date: 04/30/2013 02:59 PM
Subject: Building Materials Corporation - CAM

Hi Latha,
I've been looking over how to integrate "NSR CAM" into the permit, and am a bit stuck – despite the input of people like our CAM guy, Bill Moody. I'm also running behind on this – again, and pushing forward an issuance I promised some time ago! Anyhow, his recommendation is to put it back into the company's hands and let them propose a condition that matches up with that they are already doing in regards to MACT AAAAAAA.

It seems to me that the Special Conditions already contain one of these conditions indirectly – that is, the temperature monitoring of the thermal oxidizer. Table 4 mentions a 3 hour average combustion temperature. The current special conditions specify a one-hour average. Therefore, I think that the claim can be made that this component of CAM is already being fulfilled –albeit to a stricter interval (?). The part where I run into problems is with the Coalescing Filter Mist Elimination Systems (EPN CFL). The way I read it, the requirements for such a control device in AAAAAAA are as follows...

2. A high-efficiency air filter or fiber bed filter	a. Inlet gas temperature ^b , and b. Pressure drop across device ^b	The 3-hour average inlet gas temperature within the operating range established as specified in § 63.11562(a)(2) and (b)(3). The 3-hour average pressure drop across the device within the approved operating range established as specified in § 63.11562(a)(2) and (b)(3).
---	---	---

I suppose I could insert an additional condition written something like the following:

"The 3-hour average inlet gas temperature for the Coalescing Filter Mist Elimination Systems (Line 1 and Line 3 Asphalt Coaters) With ESP as Backup (EPN CFL) shall fall within the operating range established as specified in 40 Code of Federal Regulations (40 CFR) § 63.11562(a)(2) and (b)(3). The 3-hour average pressure drop across the device shall fall within the approved operating range established as specified in 40 CFR § 63.11562(a)(2) and (b)(3)."

Does this sound reasonable?

Joel Stanford

From: Joel Stanford
Sent: Wednesday, May 15, 2013 2:19 PM
To: 'Latha Kambham'
Subject: RE: Building Materials Corporation - CAM
Attachments: CND-7711A Building Materials Corporation of America (CAMD-MSS).doc

Here is a copy of the conditions with the new language inserted (under Compliance Assurance Monitoring). No new recordkeeping condition is needed due to SC 34 H.

From: Latha Kambham [<mailto:LKambham@trinityconsultants.com>]
Sent: Monday, May 13, 2013 2:40 PM
To: Joel Stanford
Cc: Lele Bao
Subject: Re: Building Materials Corporation - CAM

Joel,

I apologize for the delay in responding to this email. We finally received a response from the client. They agree with your recommendations. Can you please provide the Draft Special Conditions, once the permit is revised?

Thanks,
Latha

Latha Kambham, Ph.D. | Senior Consultant | lkambham@trinityconsultants.com
Trinity Consultants | 12770 Merit Dr, Ste 900 | Dallas, TX 75251
Office: (972) 661-8100 | Fax: (972) 385-9203

From: Joel Stanford <joel.stanford@tceq.texas.gov>
To: "Latha Kambham (LKambham@trinityconsultants.com)" <LKambham@trinityconsultants.com>
Date: 04/30/2013 02:59 PM
Subject: Bulding Materials Corporation - CAM

Hi Latha,
I've been looking over how to integrate "NSR CAM" into the permit, and am a bit stuck – despite the input of people like our CAM guy, Bill Moody. I'm also running behind on this – again, and pushing forward an issuance I promised some time ago! Anyhow, his

recommendation is to put it back into the company's hands and let them propose a condition that matches up with that they are already doing in regards to MACT AAAAAAA.

It seems to me that the Special Conditions already contain one of these conditions indirectly – that is, the temperature monitoring of the thermal oxidizer. Table 4 mentions a 3 hour average combustion temperature. The current special conditions specify a one-hour average. Therefore, I think that the claim can be made that this component of CAM is already being fulfilled –albeit to a stricter interval (?). The part where I run into problems is with the Coalescing Filter Mist Elimination Systems (EPN CFL). The way I read it, the requirements for such a control device in AAAAAAA are as follows...

2. A high-efficiency air filter or fiber bed filter	a. Inlet gas temperature ^b , and b. Pressure drop across device ^b	The 3-hour average inlet gas temperature within the operating range established as specified in § 63.11562(a)(2) and (b)(3). The 3-hour average pressure drop across the device within the approved operating range established as specified in § 63.11562(a)(2) and (b)(3).
---	---	---

I suppose I could insert an additional condition written something like the following:

"The 3-hour average inlet gas temperature for the Coalescing Filter Mist Elimination Systems (Line 1 and Line 3 Asphalt Coaters) With ESP as Backup (EPN CFL) shall fall within the operating range established as specified in 40 Code of Federal Regulations (40 CFR) § 63.11562(a)(2) and (b)(3). The 3-hour average pressure drop across the device shall fall within the approved operating range established as specified in 40 CFR § 63.11562(a)(2) and (b)(3)."

Does this sound reasonable?

Do feel free to suggest something. If you're at the Trade Fair, take your time in responding – I'd fully understand.

Thanks,

Joel Stanford
Air Permits Division
Mechanical/Agricultural Section
Phone: (512) 239-0270
Joel.Stanford@tceq.texas.gov

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Special Conditions

Permit Number 7711A

Emission Limitations

1. This permit authorizes those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and those sources are limited to the emission rates and other conditions specified in the table. In addition, this permit authorizes all emissions from planned startup and shutdown activities associated with facilities or groups of facilities that are authorized by this permit. **(05/13)**

Fuel Specifications

2. Fuel for the facilities shall be pipeline-quality, sweet natural gas. Use of any other fuel shall require prior written approval of the Executive Director of the Texas Commission on Environmental Quality (TCEQ). **(8/10)**
3. Upon request by the Executive Director of the TCEQ, the TCEQ Regional Director, or any local air pollution control program having jurisdiction, the holder of this permit shall provide a sample and/or an analysis of the fuel utilized in these facilities or shall allow air pollution control program representatives to obtain a sample for analysis. **(8/10)**

Federal Applicability

4. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources in Title 40 Code of Federal Regulations (40 CFR) Part 60 promulgated for Asphalt Processing and Asphalt Roofing Manufacture in Subpart UU, for Small Industrial-Commercial-Institutional Steam Generating Units in Subpart Dc, and with the General Provisions set forth in Subpart A. **(8/10)**
5. These facilities shall comply with all applicable requirements of the EPA regulations on National Emission Standards for Hazardous Air Pollutants for Area Sources in 40 CFR Part 63 promulgated for Asphalt Processing and Asphalt Roofing Manufacture, Subparts A and AAAAAA. **(8/10)**

Opacity/Visible Emission Limitations

6. In accordance with the EPA Test Method (TM) 9 or equivalent, and except for those periods described in Title 30 Texas Administrative Code (30 TAC) §§ 101.201 and 101.211, opacity of emissions from the Coalescing Filter Mist Systems (Emission Point No. [EPN] CFL/34), the Electrostatic Precipitator (EPN CFL/34) when used as a back-up control device for the filter mist systems, all dust collector stacks, all process heater vents, and building vents shall not exceed 5 percent averaged over a six-minute period. **(8/10)**

7. In accordance with the U.S. EPA TM 9 or equivalent, and except for those periods described in 30 TAC §§ 101.201 and 101.211, opacity of emissions from any asphalt storage tank exhaust gases discharged into the atmosphere shall not exceed 0 percent averaged over a six-minute period, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for clearing. The control device shall not be bypassed during this 15-minute period. Opacity of emissions from any blowing still shall not exceed 0 percent averaged over a six-minute period. Opacity of emissions from any storage silo and mineral handling facility shall not exceed 1 percent averaged over a six-minute period. **(8/10)**
8. No visible emissions from the asphalt processing and asphalt roofing manufacturing operations and facilities, roads, or travel areas shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using the U.S. EPA TM 22 or equivalent. If this condition is violated, additional controls or process changes may be required to limit visible particulate matter (PM) emissions. Stack emissions may leave the plant property provided that opacity restrictions are not violated. **(8/10)**

Operational Limitations, Work Practices, and Plant Design

9. All filler and backing material shall be received and transferred within the building with no visible emissions leaving the building. **(8/10)**
10. The emissions from Stillyard Asphalt Storage Tank Nos. T-1, T-2, T-8, T-9, T-10, T-14, T-15, T-110, and T-120; from Blowing Stills T-13 and T-26; from truck and railcar loading and unloading operations; and from the self-seal asphalt storage tank shall be vented to the direct-flame incinerator. **(8/10)**
11. Upon issuance of the amended permit, the direct-flame incinerator shall be operated at an average incineration temperature of 1450°F measured immediately downstream of the incinerator, based on a one-hour averaging period, during normal operations. Normal operations are herein defined as any time period when asphalt blowing is occurring, and emissions from the blowing are vented to the direct-flame incinerator. The direct-flame incinerator shall be operated at a minimum incineration temperature of 1300°F during Standby Operating Conditions to assure compliance with the maximum allowable emission rates table (MAERT) limits for volatile organic compounds (VOC) from EPN 8/8A. Standby operating conditions are herein defined as when no process blowers are in operation on any blowing still venting to the direct-flame incinerator. **(8/10)**
12. After issuance of the amended permit, the permit holder is allowed to conduct stack sampling of the direct-flame incinerator during normal operations at an average temperature lower than 1450°F to demonstrate compliance with the MAERT limits for VOC from EPN 8/8A. Upon demonstration of compliance with the MAERT limits for VOC, the permit holder shall submit a permit action to modify the temperature requirement of the direct-flame incinerator during Normal Operations. **(8/10)**

13. The maximum allowable asphalt throughput rates are 32,063 pounds per hour for Line 1 and 53,438 pounds per hour for Line 3. **(8/10)**
14. The maximum allowable production rates for both Line 1 and Line 3, combined, are 171 tons per hour and 1,498,000 tons per year of finished shingles. **(8/10)**
15. An opacity violation or an odor nuisance condition, as confirmed by the TCEQ or any local air pollution control program with jurisdiction, may be cause for additional controls. If the nuisance condition persists, subsequent stack sampling may also be required.
16. All in-plant roads and areas subject to road vehicle traffic shall be paved with a cohesive hard surface and cleaned, as necessary, to maintain compliance with the TCEQ rules and regulations. Unpaved work areas shall be sprayed with water and/or environmentally sensitive chemicals upon detection of visible PM emissions to maintain compliance with all TCEQ rules and regulations.
17. All stacks associated with the Line 1 Cooling Section (EPN COOL1) shall be no less than 64 feet measured from ground level. All stacks associated with the Line 3 Cooling Section (EPN COOL3) shall be no less than 73 feet measured from ground level. **(8/10)**
18. There shall be no changes in representations unless the permit is altered or amended. **(8/10)**

Continuous Determination of Compliance

19. Upon being informed by the TCEQ Executive Director that the staff has documented visible emissions that exceed the specified opacity limits, the holder of this permit may be required to conduct stack sampling analyses or other tests to prove satisfactory abatement or process equipment performance and demonstrate compliance with the PM and VOC allowable emissions specified in the MAERT. Sampling must be conducted in accordance with appropriate procedures of the TCEQ Sampling Procedures Manual and in accordance with applicable EPA CFR procedures. Any deviations from those procedures must be approved by the TCEQ Executive Director prior to sampling. **(8/10)**
20. The TCEQ Executive Director may require the permit holder to perform stack sampling or ambient air monitoring to determine the opacity, rate, composition, and/or concentration of the plant's emissions. The holder of this permit may request the TCEQ Executive Director to approve alternate sampling techniques or other means to determine the opacity, rates, composition, and/or concentration of emissions in accordance with 30 TAC § 101.8. **(8/10)**
21. All stack sampling shall be conducted within 60 days of being informed that testing is required, and it shall meet all requirements specified in the Sampling Requirements section of this permit's special conditions. **(8/10)**

22. For any asphalt storage tank and storage silo and mineral handling facility, visible emissions observations shall be made and recorded once per week. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the corresponding opacity limit, the permit holder shall report a deviation. **(8/10)**
23. For any blowing still, visible emissions observations shall be made and recorded once per week. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If a Test Method 9 is performed, the opacity limit is the corresponding opacity limit associated with the particulate matter standard in the underlying requirement. If there is no corresponding opacity limit in the underlying applicable requirement, the maximum opacity will be established using the most recent performance test. If the result of the Test Method 9 is opacity above the corresponding opacity limit (associated with the particulate matter standard in the underlying applicable requirement or as identified as a result of a previous performance test to establish the maximum opacity limit), the permit holder shall report a deviation. **(8/10)**

24. The temperature in the combustion chamber or immediately downstream of the combustion chamber of the direct-flame incinerator shall be measured and recorded four times per hour with an averaging period of one hour. The permit holder shall establish a minimum combustion temperature using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation. **(8/10)**

Compliance Assurance Monitoring

25. The 3-hour average inlet gas temperature for the Coalescing Filter Mist Elimination Systems (Line 1 and Line 3 Asphalt Coaters) With ESP as Backup (EPN CFL) shall fall within the operating range established as specified in 40 Code of Federal Regulations (40 CFR) § 63.11562(a)(2) and (b)(3). The 3-hour average pressure drop across the device shall fall within the approved operating range established as specified in 40 CFR § 63.11562(a)(2) and (b)(3).

Sampling Requirements

26. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling ports and platforms shall be installed on the exhaust stack according to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities" prior to stack sampling. Alternate sampling facility designs may be submitted for approval by the TCEQ Executive Director.
27. The plant shall operate at the maximum shingle production and raw material throughput rates and operating parameters, represented in the confidential file, during stack emissions testing being conducted for continuing compliance demonstrations. If the plant is unable to operate at the maximum rates during compliance testing, then the production/throughput rates or other parameters may be limited to the rates established during testing. If stack testing was not accomplished at the maximum production/throughput rates, then such testing may be required prior to actual operations at the maximum rates. **(8/10)**
28. A pretest meeting concerning any required stack sampling and/or ambient air monitoring shall be held with personnel from the appropriate TCEQ Regional Office before the required tests are performed. Air contaminants to be tested for and the test methods to be used shall be determined at this pretest meeting.

The TCEQ Regional Office shall be notified no less than 45 days prior to sampling to schedule a pretest meeting. The notice to the TCEQ Regional Office shall include:

- A. Date for pretest meeting;
- B. Date sampling will occur;
- C. Name of firm conducting sampling;
- D. Type of sampling equipment to be used; and
- E. Method or procedure to be used in sampling.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test results.

- 29. Air contaminants to be tested for may include (but are not limited to) PM, CO, SO₂, NO_x, and VOC.
- 30. A written proposed description of any deviation from sampling procedures specified in permit conditions or TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Office shall approve or disapprove of any deviation from specified sampling procedures.
- 31. The sampling report shall include the following: **(8/10)**
 - A. Plant production and throughput rates during tests; and
 - B. Direct-flame incinerator operating temperature during tests.
- 32. Copies of the final sampling report shall be submitted within 30 days after sampling is completed. Sampling reports shall comply with the provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows: **(8/10)**

One copy to the TCEQ Dallas/Fort Worth Regional Office; and
One copy to each appropriate local air pollution control program.
- 33. Requests to waive testing for any pollutant specified in the above special conditions shall be submitted to the TCEQ Office of Air, Air Permits Division.

Recordkeeping Requirements

- 34. In addition to the recordkeeping requirements specified in General Condition No. 7, 40 CFR Part 60, Subparts A, Dc, and UU, and 40 CFR Part 63, Subparts A and AAAAAA, the following records shall be kept and maintained on-site for a rolling 60-month period: **(1/12)**
 - A. Records of the exhaust gas temperature immediately downstream of the direct-flame incinerator to demonstrate compliance with 30 TAC § 115.126(1)(A)(i). These records shall be maintained on-site for at least five years;

- B. Records of either VOC concentration or mass emission rate of each vent gas stream for the Line 1 and Line 3 Cooling Sections at maximum actual operating conditions to demonstrate compliance with 30 TAC § 115.126(4). These records shall be maintained on-site for at least five years;
- C. Hourly asphalt throughput rates for Line 1 and for Line 3;
- D. Combined Line 1 and Line 3 hourly and annual production rates of finished shingles;
- E. Records of asphalt stored and used, that have the potential to emit Hazardous Air Pollutants [HAP], shall be kept in sufficient detail in order to allow all required emission rates to be fully and accurately calculated. Using this recorded data, a report shall be produced for the emission of HAPs (in tons per year) over the previous 12 consecutive months;
- F. Records of repairs and maintenance of all pollution abatement equipment;
- G. Records of road cleaning, application of road dust control, or road maintenance for dust control; and
- H. All monitoring data and support information as specified in 30 TAC § 122.144.

Dated:

(Could use existing NSR/MS)

CAM Applicability Review

Table 1. Summary of CAM Units

FIN (EU)	EPN (EP)	Description	CIN	Pollutant *	Emissions (tpy)		Title V Major Source Threshold (tpy)	CAM Source Type ^d	Applicable Requirements	CAM Applicable	CAM Options
					Uncontrolled ^b	Controlled ^c					
STILLYARD OPERATION											
TO1 8A	8 8A	Storage tanks (T-1, T-2, T-8, T-9, T-10, T-14, T-15, T-110, T-120) and blowstills (T-13 and T-26)	Thermal Oxidizer	VOC	18.50	0.37	100	NA	NSR Permit	No	--
				PM/PM10/PM2.5/Opacity	573.00	11.46	100	Small	NSR Permit, 30 TAC Chapter 111, NSPS Subpart UU (asphalt storage tanks and blow stills), MACT AAAAAAA (blowing stills)	Exempt *	--
COMMON TO LINE 1 AND LINE 3											
CFL	CFL	Coalescing Filter Mist Elimination Systems (to control emissions from the Line 1 and Line 3 Asphalt Coaters) with ESP as backup	Mist Elimination	PM/PM10/PM2.5/Opacity	551.88	2.76	100	Small	NSR Permit, 30 TAC Chapter 111, MACT AAAAAAA (coaters and coating mixers), NSPS Subpart UU (Line 3 coaters)	Exempt *	--
			ESP (as backup)		55.19		100	NA			
LINE NO. 1 OPERATION											
1-1	1-1	Line 1 Stabilizer Storage and Heater Baghouse Stk	Baghouse	PM/PM10/PM2.5/Opacity	10.10	1.01	100	NA	NSR Permit, 30 TAC Chapter 111	No	--
1-3	1-3	Line 1 Stabilizer Use Bin Baghouse Stack	Baghouse	PM/PM10/PM2.5/Opacity	1.30	0.13	100	NA	NSR Permit, 30 TAC Chapter 111	No	--
1-4	1-4	Line 1 Surfacing Section Dust Collector No. 1 Stack	Dust Collector	PM/PM10/PM2.5/Opacity	20.64	2.58	100	NA	NSR Permit, 30 TAC Chapter 111	No	--
1-5	1-5	Line 1 Surfacing Section Dust Collector No. 2 Stack	Dust Collector	PM/PM10/PM2.5/Opacity	20.64	2.58	100	NA	NSR Permit, 30 TAC Chapter 111	No	--
1-6	1-6	Line 1 Surfacing Section Dust Collector No. 3 Stack	Dust Collector	PM/PM10/PM2.5/Opacity	20.64	2.58	100	NA	NSR Permit, 30 TAC Chapter 111	No	--
LINE NO. 3 OPERATION											
25	25	Sand Application Baghouse	Baghouse	PM/PM10/PM2.5/Opacity	65.70	6.57	100	NA	NSR Permit, 30 TAC Chapter 111, NSPS Subpart UU (Line 3 mineral handling and storage)	No	--
26A	26A	Stabilizer Storage Baghouse A	Baghouse	PM/PM10/PM2.5/Opacity	5.60	0.70	100	NA	NSR Permit, 30 TAC Chapter 111	No	--
26B	26B	Stabilizer Storage Baghouse B	Baghouse	PM/PM10/PM2.5/Opacity	10.08	1.26	100	NA	NSR Permit, 30 TAC Chapter 111	No	--
27	27	Stabilizer Heater Baghouse	Baghouse	PM/PM10/PM2.5/Opacity	4.00	0.40	100	NA	NSR Permit, 30 TAC Chapter 111	No	--
NST1	NST1	Stabilizer Transfer Baghouse 1	Baghouse	PM/PM10/PM2.5/Opacity	15.50	0.31	100	NA	NSR Permit, 30 TAC Chapter 111	No	--
NST2	NST2	Stabilizer Transfer Baghouse 2	Baghouse	PM/PM10/PM2.5/Opacity	15.50	0.31	100	NA	NSR Permit, 30 TAC Chapter 111	No	--

* Only pollutants that are affected by a control device are listed. Pollutants not affected by a control device are not subject to CAM.

^b Uncontrolled emissions are based on Table 3.

^c Controlled emissions are based on Table 2.

^d CAM is applicable to pollutants at sources where uncontrolled emissions of the pollutant are greater than the Title V major source threshold. For a pollutant at a source that is subject to CAM, a small CAM source is one where the controlled emissions of a pollutant are less than the Title V major source threshold. A large CAM source is one where the controlled emissions of a pollutant are greater than the Title V major source threshold.

^e MACT Subpart AAAAAAA was proposed after November 15, 1990. Therefore, these applicable requirements are exempt from CAM requirements per 30 TAC 122.604(e)(1). Compliance with control device and monitoring requirements of MACT AAAAAAA will ensure compliance with particulate matter limits.

pressure drop & ESP

APPENDIX B. CAM APPLICABILITY REVIEW SUMMARY

CAM Applicability Review

Table 2. Controlled Emissions

FIN (EU)	EPN (EP)	Description	CIN	Pollutant	Controlled Emissions * (tpy)
STILLYARD OPERATION					
TO1	8	Storage tanks (T-1, T-2, T-8, T-9, T-10, T-14, T-15, T-110, T-120) and blowstills (T-13 and T-26)	Thermal Oxidizer	VOC	0.37
8A	8A			PM/PM10/PM2.5/Opacity	11.46
COMMON TO LINE 1 AND LINE 3					
CFL	CFL	Coalescing Filter Mist Elimination Systems (to control emissions from the Line 1 and Line 3 Asphalt Coaters) with ESP as backup	Mist Elimination ESP (as backup)	PM/PM10/PM2.5/Opacity	2.76
LINE NO. 1 OPERATION					
1-1	1-1	Line 1 Stabilizer Storage and Heater Baghouse Stk	Baghouse	PM/PM10/PM2.5/Opacity	1.01
1-3	1-3	Line 1 Stabilizer Use Bin Baghouse Stack	Baghouse	PM/PM10/PM2.5/Opacity	0.13
1-4	1-4	Line 1 Surfacing Section Dust Collector No. 1 Stack	Dust Collector	PM/PM10/PM2.5/Opacity	2.58
1-5	1-5	Line 1 Surfacing Section Dust Collector No. 2 Stack	Dust Collector	PM/PM10/PM2.5/Opacity	2.58
1-6	1-6	Line 1 Surfacing Section Dust Collector No. 3 Stack	Dust Collector	PM/PM10/PM2.5/Opacity	2.58
LINE NO. 3 OPERATION					
25	25	Sand Application Baghouse	Baghouse	PM/PM10/PM2.5/Opacity	6.57
26A	26A	Stabilizer Storage Baghouse A	Baghouse	PM/PM10/PM2.5/Opacity	0.70
26B	26B	Stabilizer Storage Baghouse B	Baghouse	PM/PM10/PM2.5/Opacity	1.26
27	27	Stabilizer Heater Baghouse	Baghouse	PM/PM10/PM2.5/Opacity	0.40
NST1	NST1	Stabilizer Transfer Baghouse 1	Baghouse	PM/PM10/PM2.5/Opacity	0.31
NST2	NST2	Stabilizer Transfer Baghouse 2	Baghouse	PM/PM10/PM2.5/Opacity	0.31

* Controlled emissions are based on the requested permit emission rates submitted in the December 2008 permit amendment application and Standard Permit Registration No. 91414 (for authorization of EPNs NST1 and NST2).

Table 3. Uncontrolled Emissions Calculations Based on Control Efficiencies

FIN (EU)	EPN (EP)	Description	CIN	Pollutant	Controlled Emissions * (tpy)	Control Efficiency %	Uncontrolled Emissions * (tpy)
TO1	8	Storage tanks (T-1, T-2, T-8, T-9, T-10, T-14, T-15, T-110, T-120) and blowstills (T-13 and T-26)	Thermal Oxidizer	VOC	0.37	98	18.50
8A	8A			PM/PM10/PM2.5/Opacity	11.46	98	573.00
CFL	CFL	Coalescing Filter Mist Elimination Systems (to control emissions from the Line 1 and Line 3 Asphalt Coaters) with ESP as backup	Mist Elimination ESP	PM/PM10/PM2.5/Opacity	2.76	99.5	551.88
				PM/PM10/PM2.5/Opacity		95	55.19
1-1	1-1	Line 1 Stabilizer Storage and Heater Baghouse Stk	Baghouse	PM/PM10/PM2.5/Opacity	1.01	90	10.10
1-3	1-3	Line 1 Stabilizer Use Bin Baghouse Stack	Baghouse	PM/PM10/PM2.5/Opacity	0.13	90	1.30
1-4	1-4	Line 1 Surfacing Section Dust Collector No. 1 Stack	Dust Collector	PM/PM10/PM2.5/Opacity	2.58	87.5	20.64
1-5	1-5	Line 1 Surfacing Section Dust Collector No. 2 Stack	Dust Collector	PM/PM10/PM2.5/Opacity	2.58	87.5	20.64
1-6	1-6	Line 1 Surfacing Section Dust Collector No. 3 Stack	Dust Collector	PM/PM10/PM2.5/Opacity	2.58	87.5	20.64
25	25	Sand Application Baghouse	Baghouse	PM/PM10/PM2.5/Opacity	6.57	90	65.70
26A	26A	Stabilizer Storage Baghouse A	Baghouse	PM/PM10/PM2.5/Opacity	0.70	87.5	5.60
26B	26B	Stabilizer Storage Baghouse B	Baghouse	PM/PM10/PM2.5/Opacity	1.26	87.5	10.08
27	27	Stabilizer Heater Baghouse	Baghouse	PM/PM10/PM2.5/Opacity	0.40	90	4.00
NST1	NST1	Stabilizer Transfer Baghouse 1	Baghouse	PM/PM10/PM2.5/Opacity	0.31	98	15.50
NST2	NST2	Stabilizer Transfer Baghouse 2	Baghouse	PM/PM10/PM2.5/Opacity	0.31	98	15.50

* Controlled emissions are based on Table 2.

† The control efficiency for the thermal oxidizer (EPNs 8/8A) is based on the VOC and PM/PM₁₀/BACT level submitted for pending permit amendment application for NSR Permit No. 7711A.

‡ The control efficiency for the coalescing filter mist elimination system is obtained from the Standard Permit for a Pollution Control Project application dated April 2007.

§ The control efficiencies for the baghouse, dust collector, and ESP are based on control efficiencies from the 2009 EQ Forms, with the exception of the baghouses for 1-1, 1-3, NST1, and NST2.

¶ The control efficiencies for baghouses for 1-1, 1-3, NST1, and NST2 provided by GAF on August 16, 2010.

|| Uncontrolled Emissions (tpy) = (Controlled Emissions [tpy]) * 100 / (100 - Control Efficiency)

CAM and PM requirements for the Dallas Plant are summarized in this section of the application.

CAM APPLICABILITY

Per 30 TAC §122.604(b), CAM is required for sources that meet the following requirements.

- The emission unit is subject to an emission limitation or standard for an air pollutant (or surrogate thereof) in an applicable requirement;
- The emission unit uses a control device to achieve compliance with the emission limitation or standard; and
- The emission unit has pre-control device potential to emit (PTE) greater than or equal to the amount in tons per year required for a site to be classified as a major source.

A summary of the CAM applicability review performed for the Dallas Plant is included in Appendix B of this application. The review identifies all emission units with applicable requirements and a control device is used to achieve compliance with the applicable emission limitation or standard. Additionally, pre-control emissions calculations are summarized for the identified sources and pollutants. Per the CAM applicability review performed for the Dallas Plant, the following sources in the operating permit meet the criteria for CAM:

- Thermal Oxidizer Exhaust Stack (Storage Tanks [T-1, T-2, T-8, T-9, T-10, T-14, T-15, T-110, T-120] and blowstills [T-13 and T-26])
 - NSR Permit No. 7711A emission limits for PM/PM₁₀ and PM opacity
 - 30 TAC Chapter 111 emission limits for PM/PM₁₀ and PM opacity
 - MACT AAAAAA emission limits for blowing stills for PM/PM₁₀
 - NSPS Subpart UU emission limits for asphalt storage tanks and blow stills for PM/PM₁₀
- Coalescing Filter Mist Elimination System
 - NSR Permit No. 7771A emission limits for PM/PM₁₀ and PM opacity
 - 30 TAC Chapter 111 emission limits for PM/PM₁₀ and PM opacity
 - MACT AAAAAA emission limits for coaters and coating mixers for PM/PM₁₀
 - NSPS Subpart UU emission limits for Line 3 coaters for PM/PM₁₀

Exemptions to CAM requirements are listed in 30 TAC §122.604(c) and include the following.

- Emission limitations or standards in NSPSs or NESHAPs proposed by the United States Environmental Protection Agency (U.S. EPA) after November 15, 1990

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TITLE 30**ENVIRONMENTAL QUALITY****PART 1****TEXAS COMMISSION ON ENVIRONMENTAL QUALITY****CHAPTER 122****FEDERAL OPERATING PERMITS PROGRAM****SUBCHAPTER G****PERIODIC MONITORING AND COMPLIANCE ASSURANCE
MONITORING****RULE §122.604****Compliance Assurance Monitoring Applicability**

(a) To determine the applicability of compliance assurance monitoring (CAM), each emission unit shall be considered separately with respect to each air pollutant and the term control device, as used in this subchapter, shall have the meaning defined in §122.10 of this title (relating to General Definitions).

(b) Except for emission units that are exempt under subsection (d) of this section, CAM applies to an emission unit at a major source subject to this chapter provided the following:

(1) the emission unit is subject to an emission limitation or standard for an air pollutant (or surrogate thereof) in an applicable requirement, except as noted in subsection (c) of this section;

(2) the emission unit uses a control device to achieve compliance with the emission limitation or standard in paragraph (1) of this subsection; and

(3) the emission unit has the pre-control device potential to emit greater than or equal to the amount in tons per year required for a site to be classified as a major source, as defined in this chapter.

(c) CAM shall not apply to any of the following:

(1) emission limitations or standards proposed by the EPA after November 15, 1990 under FCAA, §111 (Standards of Performance for New Stationary Sources) or §112 (Hazardous Air Pollutants);

(2) emission limitations or standards under FCAA, Title VI (Stratospheric Ozone Protection);

(3) emission limitations or standards under FCAA, Title IV (the Acid Rain Program);

(4) emission limitations or standards that apply solely under an emissions trading program approved or promulgated by the EPA under the FCAA that allows for trading emissions;

(5) emissions caps that meet the requirements specified in 40 Code of Federal Regulations (CFR) §70.4(b)(12) (State Program Submittals and Transition);

(6) emission limitations or standards for which an applicable requirement specifies a continuous compliance determination method, unless the applicable compliance method includes an assumed control device emission reduction factor that could be affected by the actual operation and maintenance of the control device (such as a surface coating line controlled by an incinerator for which continuous compliance is determined by calculating emissions on the basis of coating records and an assumed control device efficiency factor based on an initial performance test); or

(7) other emission limitations or standards specified as exempt by the EPA.

(d) CAM shall not apply to a utility unit, as defined in 40 CFR §72.2 (Definitions), that is municipally-owned if the permit holder documents in a permit application the following:

(1) the utility unit is exempt from all monitoring requirements in 40 CFR Part 75 (Continuous Emission Monitoring) (including the appendices);

(2) the utility unit is operated for the sole purpose of providing electricity during periods of peak electrical demand or emergency situations, as demonstrated by historical operating data and relevant contractual obligation, and will be operated consistent with that purpose throughout the permit term; and

(3) the actual emissions from the utility unit, based on the average annual emissions over the last three calendar years of operation (or the total time the unit has been in operation for a unit in operation less than three years), are less than 50% of the amount in tons per year required for a site to be classified as a major source and are expected to remain so.

(e) References in 40 CFR Part 64 to 40 CFR Part 70 (Operating Permit Program) shall be satisfied by the requirements of this chapter for the purpose of implementing 40 CFR Part 64.

Source Note: The provisions of this §122.604 adopted to be effective December 11, 2002, 27 TexReg 11580

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Joel Stanford

From: Latha Kambham <LKambham@trinityconsultants.com>
Sent: Friday, April 12, 2013 4:37 PM
To: Joel Stanford
Cc: Lele Bao
Subject: RE: NSR Permit No. 7711A letter followup
Attachments: Trinity Updates - MRT-7711A Building Materials Corporation of America (CAMD-MSS).docx

Joel,

The revised Special Conditions look good and we do not have any comments or changes. However, the MAERT table has some discrepancies when compared with the latest Table 1(a). Please find attached the MAERT with revisions noted using Track Changes.

Please let us know if you have any questions regarding these revisions.

Thank you and have a great weekend,
Latha

Latha Kambham, Ph.D. | Senior Consultant | lkambham@trinityconsultants.com
Trinity Consultants | 12770 Merit Dr, Ste 900 | Dallas, TX 75251
Office: (972) 661-8100 | Fax: (972) 385-9203

From: Joel Stanford <joel.stanford@tceq.texas.gov>
To: Latha Kambham <LKambham@trinityconsultants.com>
Date: 04/09/2013 02:44 PM
Subject: RE: NSR Permit No. 7711A letter followup

No problem!

From: Latha Kambham [<mailto:LKambham@trinityconsultants.com>]
Sent: Tuesday, April 09, 2013 2:42 PM
To: Joel Stanford
Cc: Lele Bao
Subject: RE: NSR Permit No. 7711A letter followup

Thank you, Joel!

I really appreciate that!

Latha

Latha Kambham, Ph.D. | Senior Consultant | lkambham@trinityconsultants.com
Trinity Consultants | 12770 Merit Dr, Ste 900 | Dallas, TX 75251
Office: (972) 661-8100 | Fax: (972) 385-9203

From: Joel Stanford <joel.stanford@tceq.texas.gov>
To: Latha Kambham <LKambham@trinityconsultants.com>
Date: 04/09/2013 02:41 PM
Subject: RE: NSR Permit No. 7711A letter followup

That would definitely be fine! Plus, it will give me time to work on some other permits before wrapping up this one.
-joel-

From: Latha Kambham [mailto:LKambham@trinityconsultants.com]
Sent: Tuesday, April 09, 2013 2:40 PM
To: Joel Stanford
Cc: Lele Bao
Subject: RE: NSR Permit No. 7711A letter followup

Joel,

Thank you very much for sending us the draft permit. We will review and confirm the updates with GAF and let you know.
Would it be okay if we respond by COB Thursday? I will be out of the office tomorrow and possibly on Thursday.

Thanks,
Latha

Latha Kambham, Ph.D. | Senior Consultant | lkambham@trinityconsultants.com
Trinity Consultants | 12770 Merit Dr, Ste 900 | Dallas, TX 75251
Office: (972) 661-8100 | Fax: (972) 385-9203

From: Joel Stanford <joel.stanford@tceq.texas.gov>
To: Latha Kambham <LKambham@trinityconsultants.com>
Date: 04/09/2013 11:17 AM
Subject: RE: NSR Permit No. 7711A letter followup

WOW/AWP

IHWG

FMC 4/1/13-TMS)

⑧

Request for Comments -- Site Review
TCEQ -- Air Permits Division
Phone: (512) 239-1250
Fax: (512) 239-1300

RECEIVED

MAR 28 2013

DFW REGION-4

Submitted by: Air Permits Initial Review Team

TO: Region: 4

City: Avalon

County: Ellis

Date Request Submitted: March 28, 2013

Date Response Requested: _____

Comments: Deadline is 45 days for MSS-type reviews, 21 calendar days for all others, from the Date Request Submitted. Section Manager approval is required for responses requested sooner than those deadlines. MSS = an NSR application for Planned Maintenance, Start-up, or Shutdown emissions in accordance with 30 TAC Chapter 101.

Date Application Received by Air Permit Initial Review Team: February 25, 2013

REGIONAL OFFICES: Please return comments to the appropriate Permitting Team Leader indicated on the following page ASAP, but no later than deadline established above. Permit disposition will proceed after comments are received or after the comments deadline has passed.

REQUESTED PERMIT ACTION:

MSS Construction	MSS Amendment	Revision
Construction	X Amendment	Other
Renewal	Renewal Abbreviated Review	

Project No.: 189590

PERMIT No.: 25231

TCEQ Account No (if applicable): ED-0006-T

Regulated Entity No.: RN100795111

Customer No.: CN600480776

Company Name: Avalon Cooperative Gin Co.

Plant Name: Avalon Co-op
Gin Company

City: Avalon

County: Ellis

Location: HIGHWAY 34 WEST AT FM 55

Unit Name: Cotton Gin

Technical Contact: J. Kelley Green

Phone: (512) 615-1102

Local Program Applicable?: Yes X No Local Programs:

Note: For sites in a region that has a local program with jurisdiction, MSS projects for those sites will be reviewed by regional offices only.

**Request for Comments -- Site Review
RESPONSE**

PLEASE SEND COMMENTS TO THE PERSON IDENTIFIED BELOW. (To avoid delays, please do not send this back to the Air Permits Initial Review Team.):

X	To: Bonnie Evridge - Air Permits Division - Austin	E-Mail: <u>Bonnie Evridge</u>	Phone: (512) 239-5222
	To: Mike Gould - Air Permits Division - Austin	E-Mail: <u>Mike Gould</u>	Phone: (512) 239-1097
	To: Steve Akers - Air Permits Division - Austin (Comb/Coat)	E-Mail: <u>Steve Akers</u>	Phone: (512) 239-1141
	To: Rick Goertz / Daniel Smothers - Air Permits Division - Austin (Chem)	E-Mail: <u>Rick Goertz / Daniel Smothers</u>	Phone: (512) 239-5606 / 1664
	To:	E-Mail:	Phone: Fax: (512) 239-1300

FROM: Region: 4	City: Avalon	County: Ellis
	Compliance: <input checked="" type="checkbox"/>	Legal:

Copy of Application Received by your Office: ☒ YES ☐ NO

Date Received: 02/25/2013

PERMIT No. **25231**

PROJECT No. **189590**

TCEQ ACCOUNT NUMBER: **ED-0006-T**

Company Name: **Avalon Cooperative Gin Co.**

Investigator's/Compliance Officer's Name (Please Print): Matthew Green

Organization: TCEQ DFW Region 4

Phone: 817 588 5917

Comments Deadline: 4/17/2013

Date of Last Site Visit: 1/16/2013

SITE INFORMATION:

Nuisance/Odor Potential: ☐ Low ☒ Moderate ☐ High

Hazard Potential: ☐ Low ☒ Moderate ☐ High

Surrounding Land Use: Small Town: Residential, School to the northeast, Farmland

School within 3,000 feet? ☒ Yes ☐ No Distance (feet): 600 ft School Name: Avalon School

Distance to Nearest Off-Property Receptor: ~~200 ft~~ Approx. 910 ft

Receptor Type: Residence

Distance from unit to nearest property line: Approximately 210 feet

Describe area surrounding the site (agriculture, industrial, residential): Rural Residential / Small Town

NOV/NOE INFORMATION (concerning affected process unit):

Type of Site: ☐ New ☒ Existing

NOV Issued? ☐ No ☒ Yes

Date: 03/20/2013

Type of Violation: Exceeded MAERT by 0.32 tpy during 2012 season

Picker cotton: 16,733

burrextracted cotton: 17,683

Was there an NOE for this site?: ☒ No ☐ Yes

Date:

Please provide any information the permit engineer needs concerning the current NOV, violation, or NOE status	Issuance of amended permit will resolve NOV
Summarize any recent complaints related to this facility including complaint type and CCEDS number:	Anonymous dust complaint received 12/19/12 DFW Region + 177350
Recommendation based on Compliance History: (*For Compliance Use Only)	
Proceed with Permit Review <input checked="" type="checkbox"/> Additional Provisions <input type="checkbox"/> Deny Permit <input type="checkbox"/> Update Application <input type="checkbox"/>	
SITE REVIEW:	
In light of the proximity of sensitive receptors and the surrounding land use, please discuss any concerns you have concerning a facility of this type locating at the proposed site. <i>None, this is an existing site</i>	
MSS Specific Notes:	
The following MSS activities in the application are insufficient or inconsistent with our knowledge of MSS at the facility, and why:	
The following activities are typically considered planned MSS and are not found in the application. These activities should be added or addressed:	

Request for Comments -- Site Review
TCEQ -- Air Permits Division
Phone: (512) 239-1250
Fax: (512) 239-1300

Submitted by: Air Permits Initial Review Team

TO: Region: 12

City: Galena Park

County: Harris

Date Request Submitted: April 11, 2013

Date Response Requested:

Comments: Deadline is 45 days for MSS-type reviews, 21 calendar days for all others, from the Date Request Submitted. Section Manager approval is required for responses requested sooner than those deadlines. MSS = an NSR application for Planned Maintenance, Start-up, or Shutdown emissions in accordance with 30 TAC Chapter 101.

Date Application Received by Air Permit Initial Review Team: March 20, 2013

REGIONAL OFFICES: Please return comments to the appropriate Permitting Team Leader indicated on the following page ASAP, but no later than deadline established above. Permit disposition will proceed after comments are received or after the comments deadline has passed.

REQUESTED PERMIT ACTION:

MSS Construction

MSS Amendment

Revision

Construction

X Amendment

Other

Renewal

**Renewal Abbreviated
Review**

Project No.: 190570

PERMIT No.: 19563

TCEQ Account No (if applicable): HG-0287-0

Regulated Entity No.: RN102511144

Customer No.: CN603816380

Company Name: LD Commodities Houston Export Elevator LLC

**Plant Name: Houston Public
Grain Elevator 2**

City: Galena Park

County: Harris

**Location: 1500 GALENA PARKS OFF MAIN ST IN GALENA PARK WHERE MAIN ST
INTERSECTS WITH THE HOUSTON SHIP CHANNEL**

Unit Name: Grain Elevator

Technical Contact: Lance Green

Phone: (225) 293-7270

Local Program Applicable?: X Yes No Local Programs: Harris

Note: For sites in a region that has a local program with jurisdiction, MSS projects for those sites will be reviewed by regional offices only.

**Request for Comments -- Site Review
RESPONSE**

PLEASE SEND COMMENTS TO THE PERSON IDENTIFIED BELOW. (To avoid delays, please do not send this back to the Air Permits Initial Review Team.):

X	To: Bonnie Evridge - Air Permits Division - Austin	E-Mail: <u>Bonnie Evridge</u>	Phone: (512) 239-5222
	To: Mike Gould - Air Permits Division - Austin	E-Mail: <u>Mike Gould</u>	Phone: (512) 239-1097
	To: Steve Akers - Air Permits Division - Austin (Comb/Coat)	E-Mail : <u>Steve Akers</u>	Phone: (512) 239-1141
	To: Rick Goertz / Daniel Smothers - Air Permits Division - Austin (Chem)	E-Mail : <u>Rick Goertz / Daniel Smothers</u>	Phone: (512) 239-5606 / 1664
	To:	E-Mail:	Phone: Fax:(512) 239-1300

FROM: Region: 12	City: Galena Park	County: Harris
	Compliance:	Legal:

Copy of Application Received by your Office: ☐ YES ☐ NO

Date Received:

PERMIT No. 19563

PROJECT No. 190570

TCEQ ACCOUNT NUMBER: HG-0287-O

Company Name: LD Commodities Houston Export Elevator LLC

Investigator's/Compliance Officer's Name (Please Print):

Organization:	Phone:
Comments Deadline:	
Date of Last Site Visit:	

SITE INFORMATION:

Nuisance/Odor Potential: <input type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High	
Hazard Potential: <input type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High	

Surrounding Land Use:

School within 3,000 feet? ☐ Yes ☐ No Distance (feet): School Name:

Distance to Nearest Off-Property Receptor:	
Receptor Type:	
Distance from unit to nearest property line:	
Describe area surrounding the site (agriculture, industrial, residential):	
NOV/NOE INFORMATION (concerning affected process unit):	

Type of Site: ☐ New ☐ Existing

NOV Issued? <input type="checkbox"/> No <input type="checkbox"/> Yes	Date:
Type of Violation:	
Was there an NOE for this site?: <input type="checkbox"/> No <input type="checkbox"/> Yes	Date:

Please provide any information the permit engineer needs concerning the current NOV, violation, or NOE status	
Summarize any recent complaints related to this facility including complaint type and CCEDS number:	
Recommendation based on Compliance History: (*For Compliance Use Only)	
Proceed with Permit Review <input type="checkbox"/> Additional Provisions <input type="checkbox"/> Deny Permit <input type="checkbox"/> Update Application <input type="checkbox"/>	
SITE REVIEW:	
In light of the proximity of sensitive receptors and the surrounding land use, please discuss any concerns you have concerning a facility of this type locating at the proposed site.	
MSS Specific Notes:	
The following MSS activities in the application are insufficient or inconsistent with our knowledge of MSS at the facility, and why:	
The following activities are typically considered planned MSS and are not found in the application. These activities should be added or addressed:	

Bryan W. Shaw, Ph.D., *Chairman*
Carlos Rubinstein, *Commissioner*
Toby Baker, *Commissioner*
Zak Covar, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

April 18, 2013

The Honorable Samuel L. Neal, Jr.
Nueces County Judge
901 Leopard Street, Room 303
Corpus Christi, Texas 78401

Re: HEB Grocery LP/Air Quality Permit #51776

Thank you for your comments on behalf of Nueces County regarding HEB Grocery LP/Air Quality Permit #51776. A copy of your letter will be forwarded to the Texas Commission on Environmental Quality (TCEQ) staff responsible for reviewing the application.

The TCEQ appreciates your interest in environmental issues. If you have any further questions, please feel free to contact TCEQ staff at 1-800-687-4040.

Sincerely,

A handwritten signature in cursive script that reads "Bridget C. Bohac".

Bridget C. Bohac
Chief Clerk

cc: Stephanie Howell, Air Permitting
Booker Harrison, Environmental Law Division

** Comments can also be submitted online at www.tceq.texas.gov/goto/comments **

P.O. Box 13087 • Austin, Texas 78711-3087 • 512-239-1000 • tceq.texas.gov

How is our customer service? tceq.texas.gov/customersurvey

printed on recycled paper

Latha Kambham, Ph.D. | Senior Consultant | lkambham@trinityconsultants.com
Trinity Consultants | 12770 Merit Dr, Ste 900 | Dallas, TX 75251
Office: (972) 661-8100 | Fax: (972) 385-9203

----- Forwarded by Latha Kambham/Trinity Consultants on 04/08/2013 03:32 PM -----

From: Stephen Anderson <stephen.anderson@tceq.texas.gov>
To: "lkambham@trinityconsultants.com" <lkambham@trinityconsultants.com>
Date: 04/08/2013 03:29 PM
Subject: NSR Permit No. 7711A letter followup

Ms. Kambham:

A scanned copy of the agency determination letter for the planned maintenance, startup and shutdown alteration request for NSR Permit No. 7711A is attached. Please call if you have any questions.

Sincerely,
Stephen Anderson, P.E.
TCEQ, Air Permits Division
Mechanical/Agricultural/Construction Section
P. O. Box 13087 (MC-163)
Austin, TX 78711-3087
512.239.1287 - voice

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Joel Stanford

From: Latha Kambham <LKambham@trinityconsultants.com>
Sent: Monday, April 08, 2013 3:51 PM
To: Joel Stanford
Subject: RE: NSR Permit No. 7711A letter followup

Joel,

Thank you very much!!! I really appreciate your help with issue.

Please let us know when the draft permit will be ready for review.

Latha

Latha Kambham, Ph.D. | Senior Consultant | lkambham@trinityconsultants.com
Trinity Consultants | 12770 Merit Dr, Ste 900 | Dallas, TX 75251
Office: (972) 661-8100 | Fax: (972) 385-9203

From: Joel Stanford <joel.stanford@tceq.texas.gov>
To: Latha Kambham <LKambham@trinityconsultants.com>
Date: 04/08/2013 03:47 PM
Subject: RE: NSR Permit No. 7711A letter followup

Yes. I have the green light from my team leader, and so will include the standard language.

-joel-

From: Latha Kambham [mailto:LKambham@trinityconsultants.com]
Sent: Monday, April 08, 2013 3:35 PM
To: Joel Stanford
Subject: Fw: NSR Permit No. 7711A letter followup

Joel,

I wanted to touch base with you to see if the SUSD operations would be included in the current NSR permit. Since Stephen officially voided this permit alteration request, I would like to make sure you are taking care of this, before I let the plant know.

Thanks,
Latha

Joel Stanford

From: Mita Upadhyay <MUpadhyay@trinityconsultants.com>
Sent: Monday, January 14, 2013 5:17 PM
To: Joel Stanford
Cc: Latha Kambham
Subject: Re: GAF/Building Materials Corporation 7711A Draft Permit

Hi Joel,

Latha in our Dallas office is the contact for GAF/ Building Materials Corporation permit application; she will get in touch with you shortly to discuss the project, if she hasn't already.

I hope you have a fun vacation!!

Regards,
Mita.

Mita Upadhyay | Senior Consultant | mupadhyay@trinityconsultants.com
Trinity Consultants | 555 N. Carancahua St., Suite 820 | Corpus Christi, TX 78401
Office: (361) 883-1668 Ext: 104 | Fax: (361) 883-1620

-----Joel Stanford <joel.stanford@tceq.texas.gov> wrote: -----

To: "Mita Upadhyay (MUpadhyay@trinityconsultants.com)" <MUpadhyay@trinityconsultants.com>
From: Joel Stanford <joel.stanford@tceq.texas.gov>
Date: 01/14/2013 03:40PM
Subject: GAF/Building Materials Corporation 7711A Draft Permit

Hi Mita,

Attached is the draft for GAF/Building Materials Corporation #7711A.

There are a couple items of note.

#1 - The Table 1A does not match the application in terms of the pollutant amounts associated with the BLR5 EPN. The amounts for HTR 5 listed also seem to be higher than currently permitted. I made the draft MAERT match the Table 1A for HTR 5, but you will want to check as to which emission amounts are proposed. Can you provide a corrected Table 1A?

#2 - It looks like some kind of modeling demonstration may be necessary due to the proposed increases. I am attaching two modeling audits, but have not thoroughly reviewed them. If you can make a demonstration that the permit will still be protective given the increases proposed (i.e. pollutants being fractions of their standards in the past) then modeling can likely be discarded for those pollutants.

I'm sending this off to region today as well in order to get their 21 day comment window out of the way.

I am headed off for a 1 week vacation, and can answer any questions upon my return next Thursday (1/24).

Thanks!

Joel Stanford

Air Permits Division

Mechanical/Agricultural Section

Phone: (512) 239-0270

Joel.Stanford@tceq.texas.gov

[attachment "Modeling Audit - 7711A - Building Materials Corporation of America.doc" removed by Mita Upadhyay/Trinity Consultants]

[attachment "Modeling Audit - 7711A Building Materials Corporation of America.doc" removed by Mita Upadhyay/Trinity Consultants]

[attachment "MRT-7711A Building Materials Corporation of America (CAMD).docx" removed by Mita Upadhyay/Trinity Consultants]

[attachment "CND-7711A Building Materials Corporation of America (CAMD).doc" removed by Mita Upadhyay/Trinity Consultants]

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Special Conditions

Permit Number 7711A

Emission Limitations

1. This permit covers only those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and those sources are limited to the emission limits and other conditions specified in the attached table. **(8/10)**

Fuel Specifications

2. Fuel for the facilities shall be pipeline-quality, sweet natural gas. Use of any other fuel shall require prior written approval of the Executive Director of the Texas Commission on Environmental Quality (TCEQ). **(8/10)**
3. Upon request by the Executive Director of the TCEQ, the TCEQ Regional Director, or any local air pollution control program having jurisdiction, the holder of this permit shall provide a sample and/or an analysis of the fuel utilized in these facilities or shall allow air pollution control program representatives to obtain a sample for analysis. **(8/10)**

Federal Applicability

4. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources in Title 40 Code of Federal Regulations (40 CFR) Part 60 promulgated for Asphalt Processing and Asphalt Roofing Manufacture in Subpart UU, for Small Industrial-Commercial-Institutional Steam Generating Units in Subpart Dc, and with the General Provisions set forth in Subpart A. **(8/10)**
5. These facilities shall comply with all applicable requirements of the EPA regulations on National Emission Standards for Hazardous Air Pollutants for Area Sources in 40 CFR Part 63 promulgated for Asphalt Processing and Asphalt Roofing Manufacture, Subparts A and AAAAAA. **(8/10)**

Opacity/Visible Emission Limitations

6. In accordance with the EPA Test Method (TM) 9 or equivalent, and except for those periods described in Title 30 Texas Administrative Code (30 TAC) §§ 101.201 and 101.211, opacity of emissions from the Coalescing Filter Mist Systems (Emission Point No. [EPN] CFL/34), the Electrostatic Precipitator (EPN CFL/34) when used as a back-up control device for the filter mist systems, all dust collector stacks, all process heater vents, and building vents shall not exceed 5 percent averaged over a six-minute period. **(8/10)**
7. In accordance with the U.S. EPA TM 9 or equivalent, and except for those periods described in 30 TAC §§ 101.201 and 101.211, opacity of emissions from any asphalt storage

tank exhaust gases discharged into the atmosphere shall not exceed 0 percent averaged over a six-minute period, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for clearing. The control device shall not be bypassed during this 15-minute period. Opacity of emissions from any blowing still shall not exceed 0 percent averaged over a six-minute period. Opacity of emissions from any storage silo and mineral handling facility shall not exceed 1 percent averaged over a six-minute period. **(8/10)**

8. No visible emissions from the asphalt processing and asphalt roofing manufacturing operations and facilities, roads, or travel areas shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using the U.S. EPA TM 22 or equivalent. If this condition is violated, additional controls or process changes may be required to limit visible particulate matter (PM) emissions. Stack emissions may leave the plant property provided that opacity restrictions are not violated. **(8/10)**

Operational Limitations, Work Practices, and Plant Design

9. All filler and backing material shall be received and transferred within the building with no visible emissions leaving the building. **(8/10)**
10. The emissions from Stillyard Asphalt Storage Tank Nos. T-1, T-2, T-8, T-9, T-10, T-14, T-15, T-110, and T-120; from Blowing Stills T-19 and T-26; from truck and railcar loading and unloading operations; and from the self-seal asphalt storage tank shall be vented to the direct-flame incinerator. **(8/10)**
11. Upon issuance of the amended permit, the direct-flame incinerator shall be operated at an average incineration temperature of 1450°F measured immediately downstream of the incinerator, based on a one-hour averaging period, during normal operations. Normal operations are herein defined as any time period when asphalt blowing is occurring, and emissions from the blowing are vented to the direct-flame incinerator. The direct-flame incinerator shall be operated at a minimum incineration temperature of 1300°F during Standby Operating Conditions to assure compliance with the maximum allowable emission rates table (MAERT) limits for volatile organic compounds (VOC) from EPN 8/8A. Standby operating conditions are herein defined as when no process blowers are in operation on any blowing still venting to the direct-flame incinerator. **(8/10)**
12. After issuance of the amended permit, the permit holder is allowed to conduct stack sampling of the direct-flame incinerator during normal operations at an average temperature lower than 1450°F to demonstrate compliance with the MAERT limits for VOC from EPN 8/8A. Upon demonstration of compliance with the MAERT limits for VOC, the permit holder shall submit a permit action to modify the temperature requirement of the direct-flame incinerator during Normal Operations. **(8/10)**

13. The maximum allowable asphalt throughput rates are 32,063 pounds per hour for Line 1 and 53,438 pounds per hour for Line 3. **(8/10)**
14. The maximum allowable production rates for both Line 1 and Line 3, combined, are 171 tons per hour and 1,498,000 tons per year of finished shingles. **(8/10)**
15. An opacity violation or an odor nuisance condition, as confirmed by the TCEQ or any local air pollution control program with jurisdiction, may be cause for additional controls. If the nuisance condition persists, subsequent stack sampling may also be required.
16. All in-plant roads and areas subject to road vehicle traffic shall be paved with a cohesive hard surface and cleaned, as necessary, to maintain compliance with the TCEQ rules and regulations. Unpaved work areas shall be sprayed with water and/or environmentally sensitive chemicals upon detection of visible PM emissions to maintain compliance with all TCEQ rules and regulations.
17. All stacks associated with the Line 1 Cooling Section (EPN COOL1) shall be no less than 64 feet measured from ground level. All stacks associated with the Line 3 Cooling Section (EPN COOL3) shall be no less than 73 feet measured from ground level. **(8/10)**
18. There shall be no changes in representations unless the permit is altered or amended. **(8/10)**

Continuous Determination of Compliance

19. Upon being informed by the TCEQ Executive Director that the staff has documented visible emissions that exceed the specified opacity limits, the holder of this permit may be required to conduct stack sampling analyses or other tests to prove satisfactory abatement or process equipment performance and demonstrate compliance with the PM and VOC allowable emissions specified in the MAERT. Sampling must be conducted in accordance with appropriate procedures of the TCEQ Sampling Procedures Manual and in accordance with applicable EPA CFR procedures. Any deviations from those procedures must be approved by the TCEQ Executive Director prior to sampling. **(8/10)**
20. The TCEQ Executive Director may require the permit holder to perform stack sampling or ambient air monitoring to determine the opacity, rate, composition, and/or concentration of the plant's emissions. The holder of this permit may request the TCEQ Executive Director to approve alternate sampling techniques or other means to determine the opacity, rates, composition, and/or concentration of emissions in accordance with 30 TAC § 101.8. **(8/10)**
21. All stack sampling shall be conducted within 60 days of being informed that testing is required, and it shall meet all requirements specified in the Sampling Requirements section of this permit's special conditions. **(8/10)**

22. For any asphalt storage tank and storage silo and mineral handling facility, visible emissions observations shall be made and recorded once per week. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the corresponding opacity limit, the permit holder shall report a deviation. **(8/10)**
23. For any blowing still, visible emissions observations shall be made and recorded once per week. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If a Test Method 9 is performed, the opacity limit is the corresponding opacity limit associated with the particulate matter standard in the underlying requirement. If there is no corresponding opacity limit in the underlying applicable requirement, the maximum opacity will be established using the most recent performance test. If the result of the Test Method 9 is opacity above the corresponding opacity limit (associated with the particulate matter standard in the underlying applicable requirement or as identified as a result of a previous performance test to establish the maximum opacity limit), the permit holder shall report a deviation. **(8/10)**
24. The temperature in the combustion chamber or immediately downstream of the combustion chamber of the direct-flame incinerator shall be measured and recorded four times per hour with an averaging period of one hour. The permit holder shall establish a minimum combustion temperature using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The

monitoring instrumentation shall be maintained, calibrated, and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation. **(8/10)**

Sampling Requirements

25. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling ports and platforms shall be installed on the exhaust stack according to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities" prior to stack sampling. Alternate sampling facility designs may be submitted for approval by the TCEQ Executive Director.
26. The plant shall operate at the maximum shingle production and raw material throughput rates and operating parameters, represented in the confidential file, during stack emissions testing being conducted for continuing compliance demonstrations. If the plant is unable to operate at the maximum rates during compliance testing, then the production/throughput rates or other parameters may be limited to the rates established during testing. If stack testing was not accomplished at the maximum production/throughput rates, then such testing may be required prior to actual operations at the maximum rates. **(8/10)**
27. A pretest meeting concerning any required stack sampling and/or ambient air monitoring shall be held with personnel from the appropriate TCEQ Regional Office before the required tests are performed. Air contaminants to be tested for and the test methods to be used shall be determined at this pretest meeting.

The TCEQ Regional Office shall be notified no less than 45 days prior to sampling to schedule a pretest meeting. The notice to the TCEQ Regional Office shall include:

- A. Date for pretest meeting;
- B. Date sampling will occur;
- C. Name of firm conducting sampling;
- D. Type of sampling equipment to be used; and
- E. Method or procedure to be used in sampling.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test results.

28. Air contaminants to be tested for may include (but are not limited to) PM, CO, SO₂, NO_x, and VOC.
29. A written proposed description of any deviation from sampling procedures specified in permit conditions or TCEQ or EPA sampling procedures shall be made available to the

TCEQ prior to the pretest meeting. The TCEQ Regional Office shall approve or disapprove of any deviation from specified sampling procedures.

30. The sampling report shall include the following: **(8/10)**
- A. Plant production and throughput rates during tests; and
 - B. Direct-flame incinerator operating temperature during tests.
31. Copies of the final sampling report shall be submitted within 45 days after sampling is completed. Sampling reports shall comply with the provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows: **(8/10)**
- One copy to the TCEQ Dallas/Fort Worth Regional Office; and
One copy to each appropriate local air pollution control program.
32. Requests to waive testing for any pollutant specified in the above special conditions shall be submitted to the TCEQ Office of Air, Air Permits Division.

Recordkeeping Requirements

33. In addition to the recordkeeping requirements specified in General Condition No. 7, 40 CFR Part 60, Subparts A, Dc, and UI, and 40 CFR Part 68, Subparts A and AAAAAAA, the following records shall be kept and maintained on-site for a rolling 60-month period: **(1/12)**
- A. Records of the exhaust gas temperature immediately downstream of the direct-flame incinerator to demonstrate compliance with 30 TAC § 115.126(1)(A)(i). These records shall be maintained on-site for at least five years;
 - B. Records of either VOC concentration or mass emission rate of each vent gas stream for the Line 1 and Line 3 Cooling Sections at maximum actual operating conditions to demonstrate compliance with 30 TAC § 115.126(4). These records shall be maintained on-site for at least five years;
 - C. Hourly asphalt throughput rates for Line 1 and for Line 3;
 - D. Combined Line 1 and Line 3 hourly and annual production rates of finished shingles;
 - E. Records of asphalt stored and used, that have the potential to emit Hazardous Air Pollutants [HAP], shall be kept in sufficient detail in order to allow all required emission rates to be fully and accurately calculated. Using this recorded data, a report shall be produced for the emission of HAPs (in tons per year) over the previous 12 consecutive months;
 - F. Records of repairs and maintenance of all pollution abatement equipment;

- G. Records of road cleaning, application of road dust control, or road maintenance for dust control; and
- H. All monitoring data and support information as specified in 30 TAC § 122.144.

Dated:

DRAFT

Emission Sources - Maximum Allowable Emission Rates

Permit Number 7711A

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
HTR3	T-1 Laminating Adhesive Bulk Storage Tank Heater Vent	NO _x	0.05	0.22
		SO ₂	0.01	0.01
		PM	0.01	0.02
		PM ₁₀	0.01	0.02
		PM _{2.5}	0.01	0.02
		CO	0.04	0.18
		VOC	0.01	0.01
HTR4	T-2 Laminating Adhesive Bulk Storage Tank heater Vent	NO _x	0.05	0.22
		SO ₂	0.01	0.01
		PM	0.01	0.02
		PM ₁₀	0.01	0.02
		PM _{2.5}	0.01	0.02
		CO	0.04	0.18
		VOC	0.01	0.01
HTR5	Asphalt Heater for T-14 and T-15 Coating Asphalt Storage and Coating Feed Loop	NO _x	0.82	3.59
		SO ₂	0.01	0.04
		PM	0.16	0.70
		PM ₁₀	0.16	0.70
		PM _{2.5}	0.16	0.70
		CO	1.73	7.58

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		VOC	0.11	0.48
BLR5	Boiler Vent	NO _x	0.82	3.59
		SO ₂	0.01	0.04
		PM	0.16	0.70
		PM ₁₀	0.16	0.70
		PM _{2.5}	0.16	0.70
		CO	1.73	7.58
		VOC	0.11	0.48
8/8A	Thermal Oxidizer Exhaust through Waste Heat Boiler Stack	NO _x	1.90	8.31
		SO ₂	29.35	128.55
		PM	2.62	11.46
		PM ₁₀	2.62	11.46
		PM _{2.5}	2.62	11.46
		CO	11.34	49.65
		VOC	0.09	0.37
WHBLR1	Waste Heat Recovery Boiler Natural Gas Burner Side	NO _x	0.47	2.06
		SO ₂	0.01	0.04
		PM	0.11	0.48
		PM ₁₀	0.11	0.48
		PM _{2.5}	0.11	0.48
		CO	1.24	5.43
		VOC	0.08	0.35

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
CFL	Coalescing Filter Mist Elimination Systems (to control emissions from the Line 1 and Line 3 Asphalt Coaters) with ESP as backup	PM	0.63	2.76
		PM ₁₀	0.63	2.76
		PM _{2.5}	0.63	2.76
		VOC	5.76	25.23
1-1	Line 1 Stabilizer Storage and Heater Baghouse Stack	PM	0.23	1.01
		PM ₁₀	0.23	1.01
		PM _{2.5}	0.23	1.01
1-3	Line 1 Stabilizer Use Bin Baghouse Stack	PM	0.03	0.13
		PM ₁₀	0.03	0.13
		PM _{2.5}	0.03	0.13
1-4	Line 1 Surfacing Section Dust Collector No. 1 Stack	PM	0.59	2.58
		PM ₁₀	0.59	2.58
		PM _{2.5}	0.59	2.58
1-5	Line 1 Surfacing Section Dust Collector No. 2 Stack	PM	0.59	2.58
		PM ₁₀	0.59	2.58
		PM _{2.5}	0.59	2.58
1-6	Line 1 Surfacing Section Dust Collector No. 3 Stack	PM	0.59	2.58
		PM ₁₀	0.59	2.58
		PM _{2.5}	0.59	2.58
Cool 1	Line 1 Cooling Section (3 stacks)	PM	8.52	37.30
		PM ₁₀	8.52	37.30
		PM _{2.5}	8.52	37.30
		VOC	1.65	7.23

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
25	Sand Application Baghouse	PM	1.50	6.57
		PM ₁₀	1.50	6.57
		PM _{2.5}	1.50	6.57
26A	Stabilizer Storage Baghouse A	PM	0.15	0.70
		PM ₁₀	0.15	0.70
		PM _{2.5}	0.15	0.70
26B	Stabilizer Storage Baghouse B	PM	0.29	1.26
		PM ₁₀	0.29	1.26
		PM _{2.5}	0.29	1.26
27	Stabilizer Heater Baghouse	PM	0.09	0.40
		PM ₁₀	0.09	0.40
		PM _{2.5}	0.09	0.40
28	Asphalt Heater	NO _x	0.59	2.60
		SO ₂	<0.01	0.02
		PM	0.04	0.20
		PM ₁₀	0.04	0.20
		PM _{2.5}	0.04	0.20
		CO	0.50	2.20
		VOC	0.03	0.10
FUG1	Plant-wide Fugitive Emissions	PM	0.91	3.97
		PM ₁₀	0.91	3.97
		PM _{2.5}	0.91	3.97
		VOC	0.43	1.88

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
COOL3	Line 3 Cooling Section (3 stacks)	PM	6.74	29.52
		PM ₁₀	6.74	29.52
		PM _{2.5}	6.74	29.52
		VOC	0.03	0.14
HTR6	Line 3 Stabilizer Thermal Fluid Heater Vent	NO _x	0.60	2.58
		SO ₂	0.01	0.02
		PM	0.05	0.20
		PM ₁₀	0.05	0.20
		PM _{2.5}	0.05	0.20
		CO	0.49	2.16
		VOC	0.03	0.14

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 NO_x - total oxides of nitrogen
 SO₂ - sulfur dioxide
 PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
 PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
 PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
 CO - carbon monoxide
 HAP - hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.

Date: _____

Joel Stanford

From: Fitzner, Marilyn <marilyn.fitzner@dallascityhall.com>
Sent: Thursday, January 17, 2013 3:54 PM
To: Joel Stanford
Subject: Request for Comments GAF
Attachments: GAF RFC.docx

Mr. Stanford,

Attached is the Request for Comments for the Building Materials of America, GAF Plant--Dallas, TX. The only changes to the permit were due to a larger boiler which raised emission rates and the MAERT Table had to be adjusted at two emission points. The emission rates are still within regulatory limits.

Marilyn Fitzner

Environmental Specialist III

Air Quality Compliance--City of Dallas

320 E Jefferson Rm LL13

Dallas, TX 75203

Phone: 214-948-4190

Fax: 214-948-4412

marilyn.fitzner@dallascityhall.com

Request for Comments -- Draft Permit
RESPONSE

TO: Mr. Joel Stanford, Austin

FROM: Region:4

City:Dallas

County:Dallas

Account No.:DB-0378-S

Copy of Application Received by your Office: ☒ YES ☐ NO

Date Received: 14 January 2013

COMPANY NAME:Building Materials Corporation Of America

PERMIT NO.:7711A

REGULATED ENTITY NO:RN100788959

PROJECT NO.:183376

Investigator's/Compliance Officer's Name (Please Print): Marilyn Fitzner

Phone: (214) 948-4190

Comments Deadline (from pg. 1): February 4, 2013

Date of Last Site Visit: 09 February 2010

COMMENTS ON CONDITIONS: (Please mark up draft special conditions with your comments. Please address applicability and enforceability. List any additional conditions below):

Please note that the scope of the review is typically limited to the affected sources within the project, although suggestions to improve the enforceability of conditions not related to the specific permit action may be provided with justification. Please also note that changes in permit stringency during a renewal process must meet the criteria of Texas Health and Safety Code 382.055(e) and should be submitted with justification.

Compliance Determination Conditions: The requested changes for the permit are due to replacement of a boiler with a larger unit and the related adjusted changes to the MAERT Table. The only items changing are higher air contaminant emission standards for two facility emission points, HTR5 and BLR5.

Operational Limitations: The new emission rates are within regulations.

GENERAL COMMENTS: :

PERMIT ISSUANCE:

If you have any objections to issuance, please note them here:
None

To: 915122391300
10/18/12 04:54 PM

From: (2149484412)

Page 1 of 4

Larkin

FAX

For: Mike Gould

Fax number:

From:

Brian Cunningham
Environmental Specialist III



City of Dallas

Environmental & Health Services
Air Pollution Control
320 East Jefferson Room LL13
Dallas, Texas 75203

Telephone 214-948-4203
Fax 214-948-4412
brian.cunningham@dallascityhall.com

Date: 10/18/12

Regarding: GAF RFC Project # 18376

Number of pages: 4

Comments:

"Dallas - Together, we do it better"

Request for Comments -- Site Review TCEQ -- Air Permits Division Phone: (512) 239-1250 Fax: (512) 239-1300		
Submitted by: Air Permits Initial Review Team		
TO: Region: 4	City: Dallas	County: Dallas
Date Request Submitted: October 2, 2012		Date Response Requested:
Comments: Deadline is 45 days for MSS-type reviews, 21 calendar days for all others, from the Date Request Submitted. Section Manager approval is required for responses requested sooner than those deadlines. MSS = an NSR application for Planned Maintenance, Start-up, or Shutdown emissions in accordance with 30 TAC Chapter 101.		
Date Application Received by Air Permit Initial Review Team: September 28, 2012		
REGIONAL OFFICES: Please return comments to the appropriate Permitting Team Leader indicated on the following page ASAP, but no later than deadline established above. Permit disposition will proceed after comments are received or after the comments deadline has passed.		
REQUESTED PERMIT ACTION:		
MSS Construction	MSS Amendment	Revision
Construction	X Amendment	Other
Renewal	Renewal Abbreviated Review	
Project No.: 183376		PERMIT No.: 7711A
TCEQ Account No (if applicable): DB-0378-S		
Regulated Entity No.: RN100788959		Customer No.: CN602717464
Company Name: Building Materials Corporation of America		
Plant Name: GAF Materials	City: Dallas	County: Dallas
Location: 2600 Singleton Boulevard		
Unit Name: Asphalt Roofing Production Facility		
Technical Contact: Durwin Farlough		Phone: (214) 637-8977
Local Program Applicable?: X Yes No Local Programs: Dallas Note: For sites in a region that has a local program with jurisdiction, MSS projects for those sites will be reviewed by regional offices only.		

Request for Comments -- Site Review RESPONSE			
PLEASE SEND COMMENTS TO THE PERSON IDENTIFIED BELOW. (To avoid delays, please do not send this back to the Air Permits Initial Review Team.):			
	To: Bonnie Evridge - Air Permits Division - Austin	E-Mail: <u>Bonnie Evridge</u>	Phone: (512) 239-5222
X	To: Mike Gould - Air Permits Division - Austin	E-Mail: <u>Mike Gould</u>	Phone: (512) 239-1097
	To: Steve Akers - Air Permits Division - Austin (Comb/Coat)	E-Mail: <u>Steve Akers</u>	Phone: (512) 239-1141
	To: Tony Ionescu - Air Permits Division - Austin (Chem)	E-Mail: <u>Tony Ionescu</u>	Phone: (512) 239-1277
	To:	E-Mail:	Phone: Fax: (512) 239-1300
FROM: Region: 4		City: Dallas	County: Dallas
		Compliance:	Legal:
Copy of Application Received by your Office: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
Date Received: 10/1/12			
PERMIT No. 7711A		PROJECT No. 183376	
TCEQ ACCOUNT NUMBER: DB-0378-S			
Company Name: Building Materials Corporation of America			
Investigator's/Compliance Officer's Name (Please Print): <u>Brian Cunningham</u>			
Organization: <u>City of Dallas</u>			Phone: <u>214 948-4203</u>
Comments Deadline: <u>10/22/12</u>			
Date of Last Site Visit: <u>10/18/12</u>			
SITE INFORMATION:			
Nuisance/Odor Potential: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High			
Hazard Potential: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High			
Surrounding Land Use: <u>3 Schools</u>			<u>Edison MS - 1600ft</u>
School within 3,000 feet? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Distance (feet):			School Name: <u>Pinkston HS - 2500ft</u>
Distance to Nearest Off-Property Receptor: <u>250ft</u>			<u>Sequoyah ES - 1600ft</u>
Receptor Type: <u>Business</u>			
Distance from unit to nearest property line: <u>200ft</u>			
Describe area surrounding the site (agriculture, industrial, residential):			<u>mixed residential + industrial</u>
NOV/NOE INFORMATION (concerning affected process unit):			
Type of Site: <input type="checkbox"/> New <input type="checkbox"/> Existing			
NOV Issued? <input type="checkbox"/> No <input type="checkbox"/> Yes			Date:
Type of Violation:			
Was there an NOE for this site?: <input type="checkbox"/> No <input type="checkbox"/> Yes			Date:

Please provide any information the permit engineer needs concerning the current NOE violation, or NOE status	
Summarize any recent complaints related to this facility including complaint type and CCEDS number:	
Recommendation based on Compliance History: (*For Compliance Use Only)	
Proceed with Permit Review <input type="checkbox"/> Additional Provisions <input type="checkbox"/> Deny Permit <input type="checkbox"/> Update Application <input type="checkbox"/>	
SITE REVIEW:	
In light of the proximity of sensitive receptors and the surrounding land use, please discuss any concerns you have concerning a facility of this type locating at the proposed site. <i>None</i>	
MSS Specific Notes:	
The following MSS activities in the application are insufficient or inconsistent with our knowledge of MSS at the facility, and why:	
The following activities are typically considered planned MSS and are not found in the application. These activities should be added or addressed:	

10/02/2012 -----NSR IMS - PROJECT RECORD -----

PROJECT#: 183376 PERMIT#: 7711A STATUS: PENDING DISP CODE: _____
RECEIVED: 09/28/2012 PROJTYPE: AMEND AUTHTYPE: CONSTRUCT ISSUED DT: _____
RENEWAL: 10/21/2014
PROJECT ADMIN NAME: ASPHALT ROOFING PRODUCTION FACILITY
PROJECT TECH NAME: ASPHALT ROOFING PRODUCTION FACILITY

Assigned Team: MECH/CONST TEAM

STAFF ASSIGNED TO PROJECT:

WILBORN, JESSIE - REVIEWR1_2 - AP INITIAL REVIEW
TEAM LEADER, M/C - REVIEW ENG - MECH/CONST TEAM

CUSTOMER INFORMATION (OWNER/OPERATOR DATA)

ISSUED TO: BUILDING MATERIALS CORPORATION OF AMERICA
COMPANY NAME: Building Materials Corporation of America
CUSTOMER REFERENCE NUMBER: CN602717484

REGULATED ENTITY/SITE INFORMATION

REGULATED ENTITY NUMBER: RN100788859 ACCOUNT: DB0378S
PERMIT NAME: GAF MATERIALS

REGULATED ENTITY LOCATION: 2600 SINGLETON BLVD
REGION 04 - DFW METROPLEX NEAR CITY: DALLAS COUNTY: DALLAS

CONTACT DATA

CONTACT NAME: MR BRUCE DAHLGREN CONTACT ROLE: RESPONSIBLE OFFICIAL
JOB TITLE: PLANT MANAGER ORGANIZATION: BUILDING MATERIALS CORPORATION OF AMERICA
MAILING ADDRESS: 2600 SINGLETON BLVD, DALLAS, TX, 75212-3738
PHONE: (214) 637-8970 Ext: 0
FAX: (214) 637-5202 Ext: 0
EMAIL: BDAHLGREN@GAF.COM

CONTACT NAME: MR DURWIN FARLOUGH CONTACT ROLE: TECHNICAL CONTACT
JOB TITLE: PROJECT ENGINEER ORGANIZATION: BUILDING MATERIALS CORPORATION OF AMERICA
MAILING ADDRESS: 2600 SINGLETON BLVD, DALLAS, TX, 75212-3738
PHONE: (214) 637-8977 Ext: 0
FAX: (214) 637-5202 Ext: 0
EMAIL: DFARLOUGH@GAF.COM

PROJECT NOTES:

10/01/2012 DFC 10/01/2012
10/02/2012 SR DOCUMENT NO 441181, LEGLTRS DOCUMENT NO 448182.

PERMIT NOTES:

12/09/2009 INCORPORATE STANDARD PERMIT NO. 91414 AT NEXT AMEND. OR RENEWAL

FEE:

Reference	Fee Receipt Number	Amount	Fee Receipt Date	Fee Payment Type
161612	PI00116151	900.00	09/21/2012	ePAY

TRACKING ELEMENTS:

TE Name	Start Date	Complete Date
APIRT RECEIVED PROJECT (DATE)	09/28/2012	
PHONE CONFERENCE (DATE)	10/01/2012	
APIRT TRANSFERRED PROJECT TO TECHNICAL STAFF (DATE)	10/02/2012	
COMPLIANCE HISTORY REVIEW COMPLETED (DATE)		
DEFICIENCY CYCLE		
DRAFT PERMIT RFC SENT TO REGION (DATE)		
EMISSIONS MODELING CYCLE DONE BY APPLICANT		
EMISSIONS MODELING CYCLE DONE BY TCEQ		
FINAL PACKAGE REWORK CYCLE		
FINAL PACKAGE TO SECTION MANAGER FOR REVIEW (DATE)		
FINAL PACKAGE TO TEAM LEADER OR SUPERVISOR FOR REVIEW (DATE)		
MODELING AUDIT CYCLE		
PROJECT RECEIVED BY ENGINEER (DATE)		
PROJECT RECEIVED BY TECHNICAL STAFF FROM APIRT (DATE)		
TOXICOLOGY RFC CYCLE		

WORKING DRAFT PERMIT REVIEW CYCLE
WPO FINAL PACKAGE CYCLE

Permit Unit Type:

Jessie Wilborn

From: ENotice
Sent: Tuesday, October 02, 2012 2:25 PM
To: Royce.west@senate.state.tx.us; eric.johnson@house.state.tx.us
Subject: TCEQ NOTICE - PERMIT 7711A
Attachments: TCEQ NOTICE - PERMIT 7711A.pdf

This email is being sent to electronically transmit an official document issued by the Office of Air of the Texas Commission on Environmental Quality.

This email is being sent to you because either (a) you filed a document with the Office of the Chief Clerk that made you part of the official mailing list for the above referenced matter, or (b) notice to you is legally required. As authorized by Texas Water Code 5.128, this electronic transmittal is replacing the previous practice of hard copy distribution. Amendments to Texas Government Code 552.137 prompted a change to the agency's privacy policy regarding confidentiality of certain email addresses. The revised privacy policy can be viewed at http://www.tceq.state.tx.us/help/policies/electronic_info_policy.html.

Questions regarding this email may be submitted either by replying directly to this email or by calling Mrs. Jayme Sadlier with the Office of Air at 512-239-1683.

The attached document is provided in an Adobe Acrobat .pdf format. If you cannot display the attachment, you may need to visit the Adobe web site (<http://get.adobe.com/reader>) to download the free Adobe Acrobat Reader software.

Jessie Wilborn

From: Jessie Wilborn
Sent: Tuesday, October 02, 2012 2:06 PM
To: RFCAIR4
Cc: 'joni.keach@dallascityhall.com'
Subject: Site Review/Request for Comments for Project Number 183376
Attachments: 183376-RFC-10022012_140152.doc

PLEASE DO NOT RESPOND TO THE PERSON SENDING THIS EMAIL.

This is a request for comments. Please submit comments to the individual and within the specified time frame as identified in the attached file.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
TELEPHONE MEMO TO THE FILE

Please complete with typewriter or black pen.

Call to:

Latha Kambham

Date of call:

10/1/2012

Phone no.:

(972) 661-

Call from:

Jessie Wilbon

File no.:

183376

Subject:

Phone Conference

Information for file:

spoke with Latha and she will complete IV-F and email the updated copy to me.

Signed

Jessie Wilbon



Who Represents Me? Districts By Address

U.S. Senators|U.S. Representatives|State Senators|State Representatives|SBOE

* indicates address is located near a district boundary. The county voter registration office maintains official precinct information, including the districts for each precinct; contact your local voter registrar for verification.

2600 Singleton Blvd
Dallas, TX
75212-3738
Dallas

Texas U.S. Senators

U.S. Senators represent the entire state. Texas' current U.S. Senators are Senator John Cornyn and Senator Kay Bailey Hutchison. See their websites for current contact information.

Texas U.S. Representative

Congressional District 30--
Congresswoman Eddie Bernice Johnson
Texas Congressional Member Websites

Congressional Districts for the 2012 Elections *

Congressional District 33

Texas State Senator

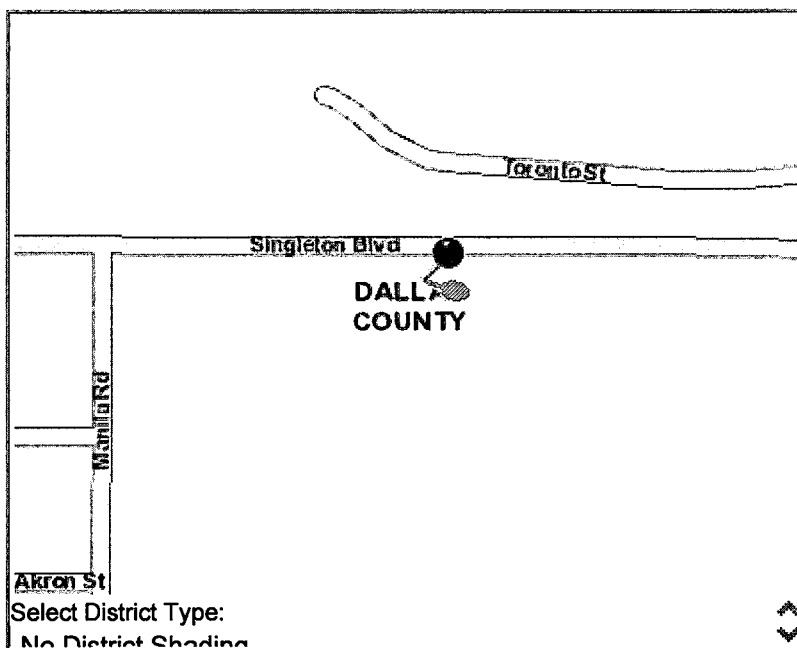
Senate District 23--Senator Royce West
Capitol Office: CAP 1E.12
Capitol Phone: (512) 463-0123
Capitol Address: P.O. Box 12068, Capitol
Station
Austin, TX 78711
District Address: 5787 S. Hampton Rd.,
Suite 385
Dallas TX 75232
Phone: (214) 467-0123
State District Offices

Senate District for the 2012 Elections

Senate District 23

Texas State Representative

House District 100--Representative Eric
Johnson
Capitol Office: EXT E1.306
Capitol Phone: (512) 463-0586
Capitol Address: P.O. Box 2910
Austin, TX 78768



District Address: 1409 South Lamar St.,
Ste. 9
Dallas TX 75215
Phone: (214) 565-5663

**House District for the 2012
Elections**

House District 100

**Texas State Board of Education
Member**

SBOE District 13--Mrs. Mavis Best Knight
State Board of Education Member
Websites

**SBOE District for the 2012
Elections**

SBOE District 13

TEXAS SECRETARY of STATE

HOPE ANDRADE

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BUSINESS ORGANIZATIONS INQUIRY - VIEW ENTITY

Filing Number: 9891206 **Entity Type:** Foreign For-Profit Corporation
Original Date of Filing: February 16, 1994 **Entity Status:** In existence
Formation Date: N/A
Tax ID: 12232762901 **FEIN:**

Name: BUILDING MATERIALS CORPORATION OF AMERICA
Address: 1361 ALPS ROAD
WAYNE, NJ 07470 USA
Fictitious Name: GAF MATERIALS CORPORATION
Jurisdiction: DE, USA
Foreign Formation Date: N/A

<u>REGISTERED AGENT</u>	<u>FILING HISTORY</u>	<u>NAMES</u>	<u>MANAGEMENT</u>	<u>ASSUMED NAMES</u>	<u>ASSOCIATED ENTITIES</u>
Name		Name Status	Name Type	Name Inactive Date	Consent Filing #
BUILDING MATERIALS CORPORATION OF AMERICA		In use	Legal		
GAF MATERIALS CORPORATION		In use	Fictitious		
GAF NEWCO INC.		Prior	Legal	March 10, 1994	

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Instructions:

- ☛ To place an order for additional information about a filing press the 'Order' button.

P100416151

9/21

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Payment Method: CC - Authorization 0000082097
Amount: \$900.00
ePay Actor: Durwin Farlough
Actor Email: dfarlough@gaf.com
IP: 69.74.53.196

Payment Contact Information

Name: Durwin Farlough
Company: Gaf Materials
Address: 2600 Singleton Blvd, Dallas, TX 75212
Phone: 214-637-8977

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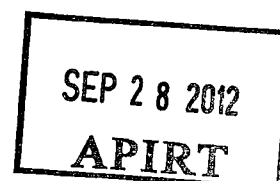
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Last Modified 12/4/08

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Texas Commission on Environmental Quality
Table 30
Estimated Capital Cost and Fee Verification

Include estimated cost of the equipment and services that would normally be capitalized according to standard and generally accepted corporate financing and accounting procedures. Tables, checklists, and guidance documents pertaining to air quality permits are available from the Texas Commission on Environmental Quality, Air Permits Division Web site at www.tceq.state.tx.us/nav/permits/air_permits.html.

I. DIRECT COSTS [30 TAC § 116.141(c)(1)]		Estimated Capital Cost
A.	A process and control equipment not previously owned by the applicant and not currently authorized under this chapter	\$0
B.	Auxiliary equipment, including exhaust hoods, ducting, fans, pumps, piping, conveyors, stacks, storage tanks, waste disposal facilities, and air pollution control equipment specifically needed to meet permit and regulation requirements	\$0
C.	Freight charges	\$0
D.	Site preparation, including demolition, construction of fences, outdoor lighting, road and parking areas	\$0
E.	Installation, including foundations, erection of supporting structures, enclosures or weather protection, insulation and painting, utilities and connections, process integration, and process control equipment	\$0
F.	Auxiliary buildings, including materials storage, employee facilities, and changes to existing structures	\$0
G.	Ambient air monitoring network	\$0
II. INDIRECT COSTS [30 TAC § 116.141(c)(2)]		Estimated Capital Cost
A.	Final engineering design and supervision, and administrative overhead	\$0
B.	Construction expense, including construction liaison, securing local building permits, insurance, temporary construction facilities, and construction clean-up	\$0
C.	Contractor's fee and overhead	\$0
TOTAL ESTIMATED CAPITAL COST		\$85,344

I certify that the total estimated capital cost of the project as defined in 30 TAC § 116.141 is equal to or less than the above figure. I further state that I have read and understand Texas Water Code § 7.179, which defines CRIMINAL OFFENSES for certain violations, including intentionally or knowingly making, or causing to be made, false material statements or representations.

Company Name: Building Materials Corporation of America

Company Representative Name (please print): Bruce Dahlgren Title: Plant Manager

Company Representative Signature: _____

Estimated Capital Cost		Permit Application Fee	PSD/Nonattainment Application Fee
Less than	\$300,000	\$900 (minimum fee)	\$3,000 (minimum fee)
\$300,000 to	\$25,000,000	0.30% of capital cost	
\$300,000 to	\$7,500,000		1.0% of capital cost
Greater than	\$25,000,000	\$75,000 (maximum fee)	
Greater than	\$7,500,000		\$75,000 (maximum fee)

PERMIT APPLICATION FEE (from table above) = \$900

Date: 9/19/12



12770 Merit Drive | Suite 900 | Dallas, TX 75251 | P (972) 661-8100 | F (972) 385-9203

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September 27, 2012



Air Permits Initial Review Team (APIRT)
Texas Commission on Environmental Quality
12100 Park 35 Circle, MC 161
Building C, Third Floor
Austin, TX 78753

Re: *NSR Permit Amendment Application, NSR Permit No. 7711A*
Standby Boiler Burner Replacement Project
GAF Materials Corporation- Dallas Plant
TCEQ Account Number: DB-0378-S
TCEQ Customer Reference Number: CN602717464
TCEQ Regulated Entity Number: RN100788959

Dear Air Permits Initial Review Team:

Building Materials Corporation of America doing business as GAF Materials Corporation (GAF) owns and operates an existing asphalt roofing production facility in Dallas, Texas (Dallas Plant). Please find enclosed a New Source Review (NSR) Permit Amendment Application for NSR Permit No. 7711A to authorize Standby Boiler burner replacement project. This permit amendment application is submitted in accordance with Title 30 of the Texas Administrative Code (30 TAC) Chapter 116 and includes the TCEQ Form PI-1 (General Application for Air Preconstruction Permits and Amendments) and supporting documentation. As demonstrated in the enclosed permit amendment application, the proposed project meets all of the current applicable regulatory requirements. A permit amendment application fee of \$900 has been paid via TCEQ's ePay. The ePay transaction receipt is included in the registration for your reference.

Thank you for your assistance in this matter. If you have any questions, please feel free to contact me at (972) 661-8100, or Mr. Durwin Farlough at (214)637-8977.

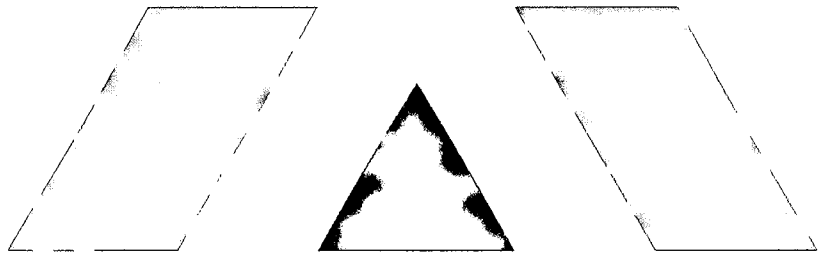
Sincerely,

TRINITY CONSULTANTS

Latha Kambham, Ph.D.
Senior Consultant

Attachment

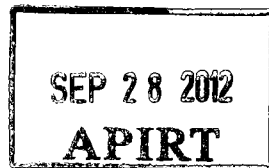
cc: Ms. Alyssa Taylor, TCEQ Region 4 (Dallas/Fort Worth)
Mr. David Miller, City of Dallas
Mr. Durwin Farlough, GAF



TCEQ NSR PERMIT AMENDMENT APPLICATION

GAF Materials Corporation > Dallas Plant

Standby Boiler Burner Replacement Project



Prepared By:

Latha Kambham, Ph.D. – Senior Consultant
Lele Bao – Consultant

TRINITY CONSULTANTS
12770 Merit Drive
Suite 900
Dallas, TX
75251
Ph : (972) 661-8100

September 2012

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2. TCEQ FORM PI-1

3. PERMIT FEE (TCEQ TABLE 30)

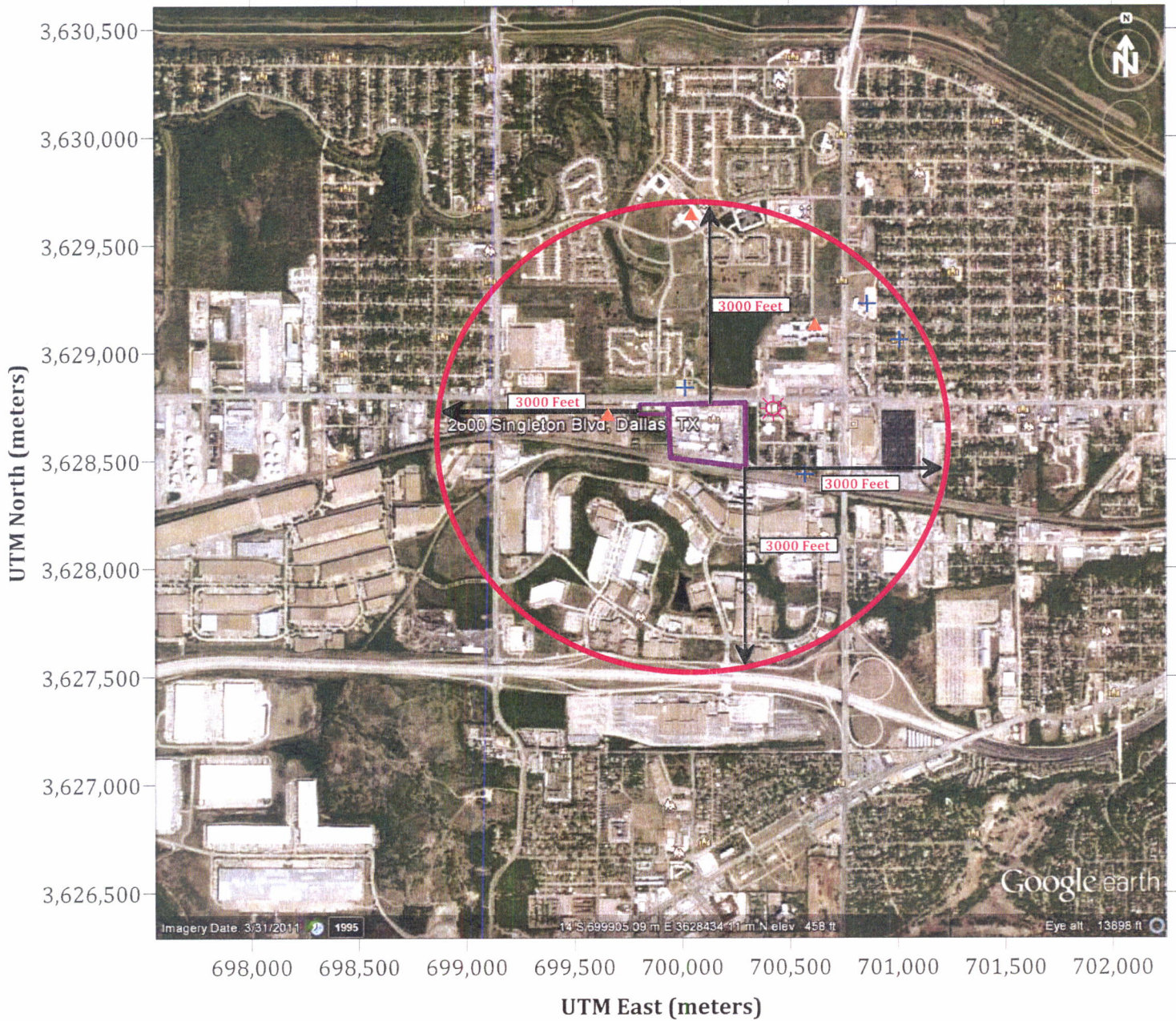
The capital cost of this project is estimated to be \$85,344. A fee in the amount of \$900 for permit amendment action has already been paid via TCEQ's ePay. The ePay transaction receipt and TCEQ Table 30 are provided at the end of this section.

4. AREA MAP

The GAF Dallas Plant is located at 2600 Singleton Boulevard, Dallas, Dallas County, Texas (TCEQ Region 4). An area map is included in this section to graphically depict the location of the GAF Dallas Plant with respect to the surrounding topography. The map depicts the property line with respect to predominant geographic features (such as highways, roads, streams, railroads, etc.).

GAF Materials Corporation

Dallas Plant



Reference UTM Coordinates are in NAD83.
Map image from Google Earth TM Mapping Service.

Legend

	Property Line
	School
	Library
	Church



5. PLOT PLAN

FIGURE 1. LOCATION OF PROPERTY LINE, BUILDING STRUCTURES, AND EMISSION SOURCES FOR THE GAF DALLAS PLANT

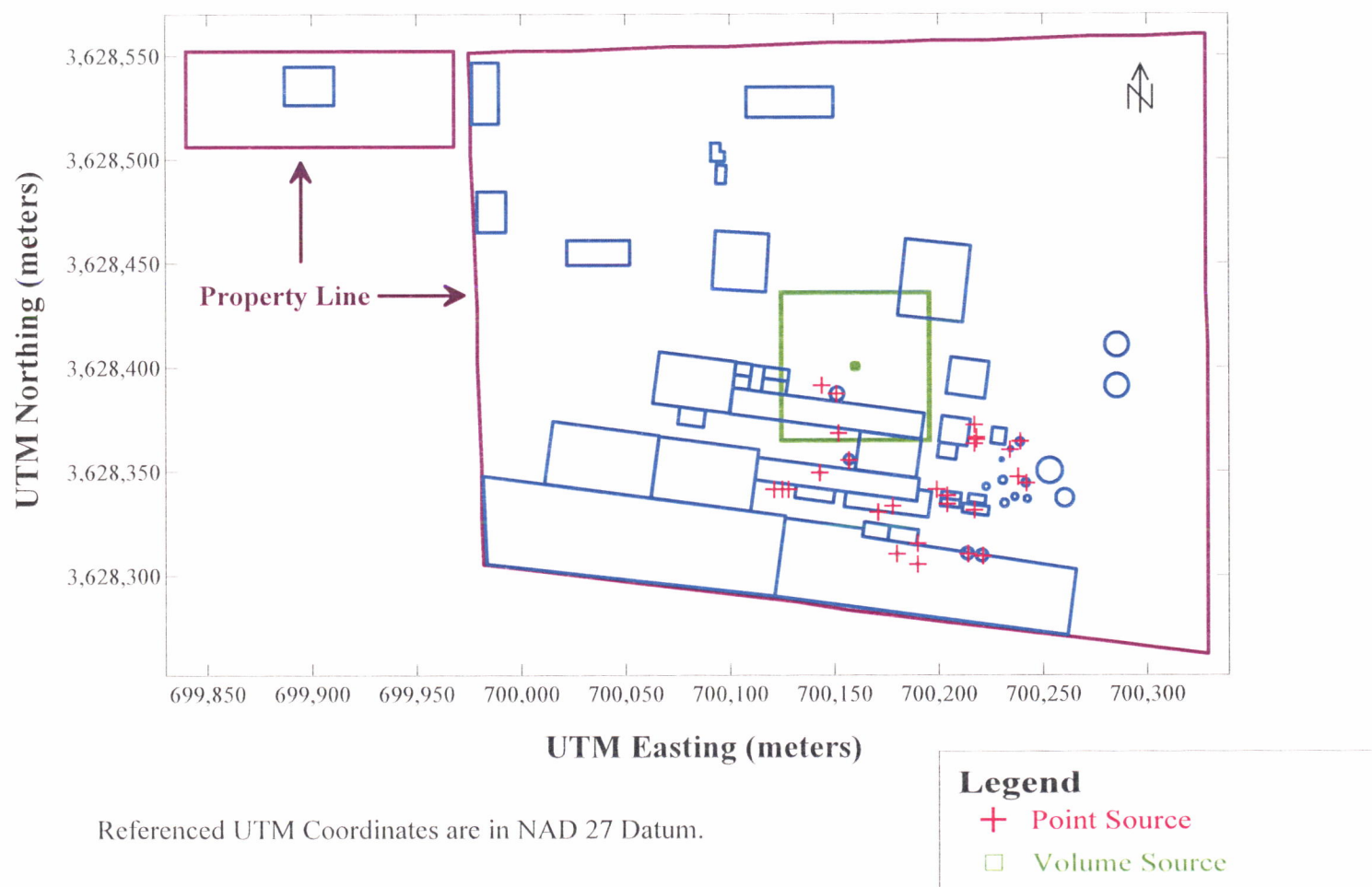
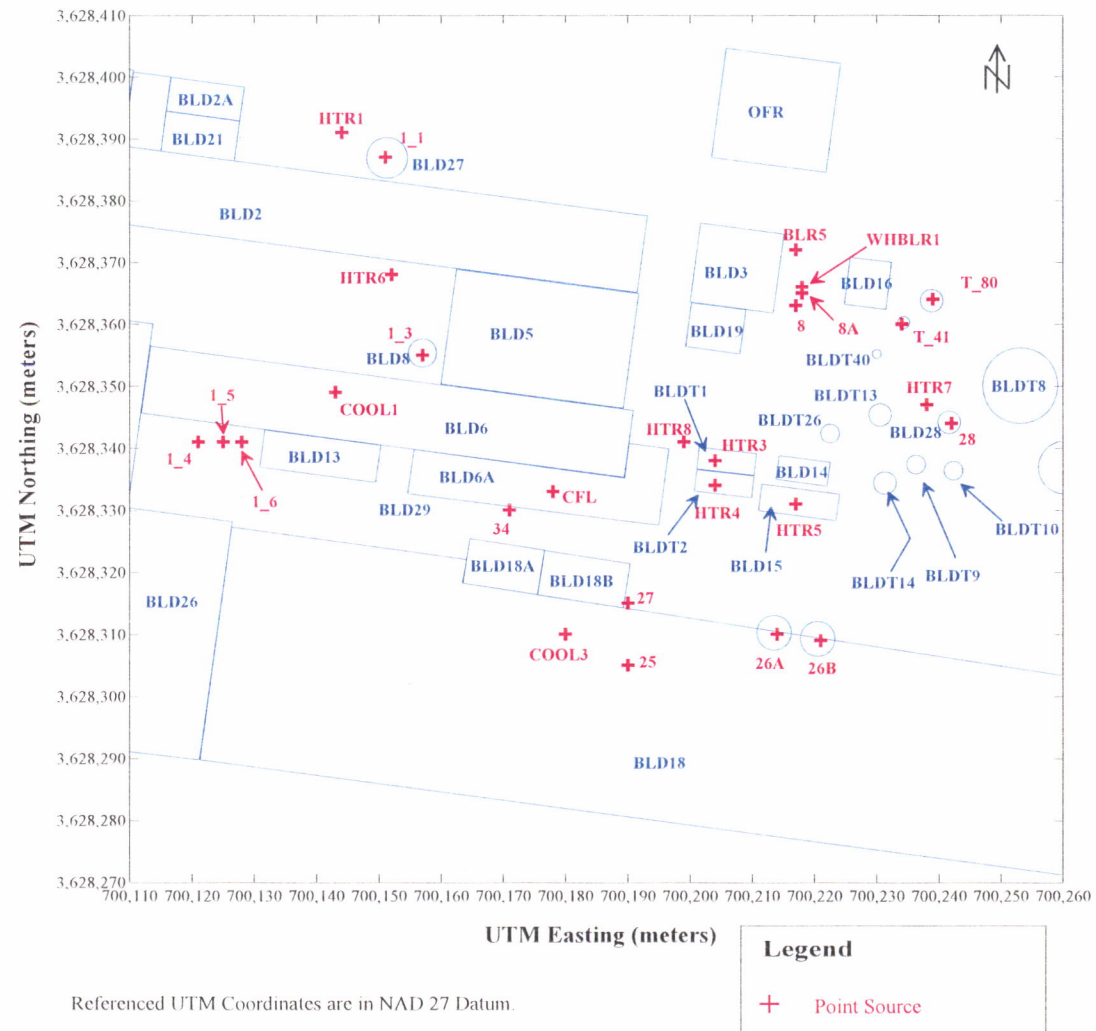


FIGURE 2. LOCATION AND IDS OF BUILDING STRUCTURES FOR THE GAF DALLAS PLANT



FIGURE 3. LOCATION AND EPNS OF POINT SOURCES FOR THE GAF DALLAS PLANT



6. PROCESS DESCRIPTION

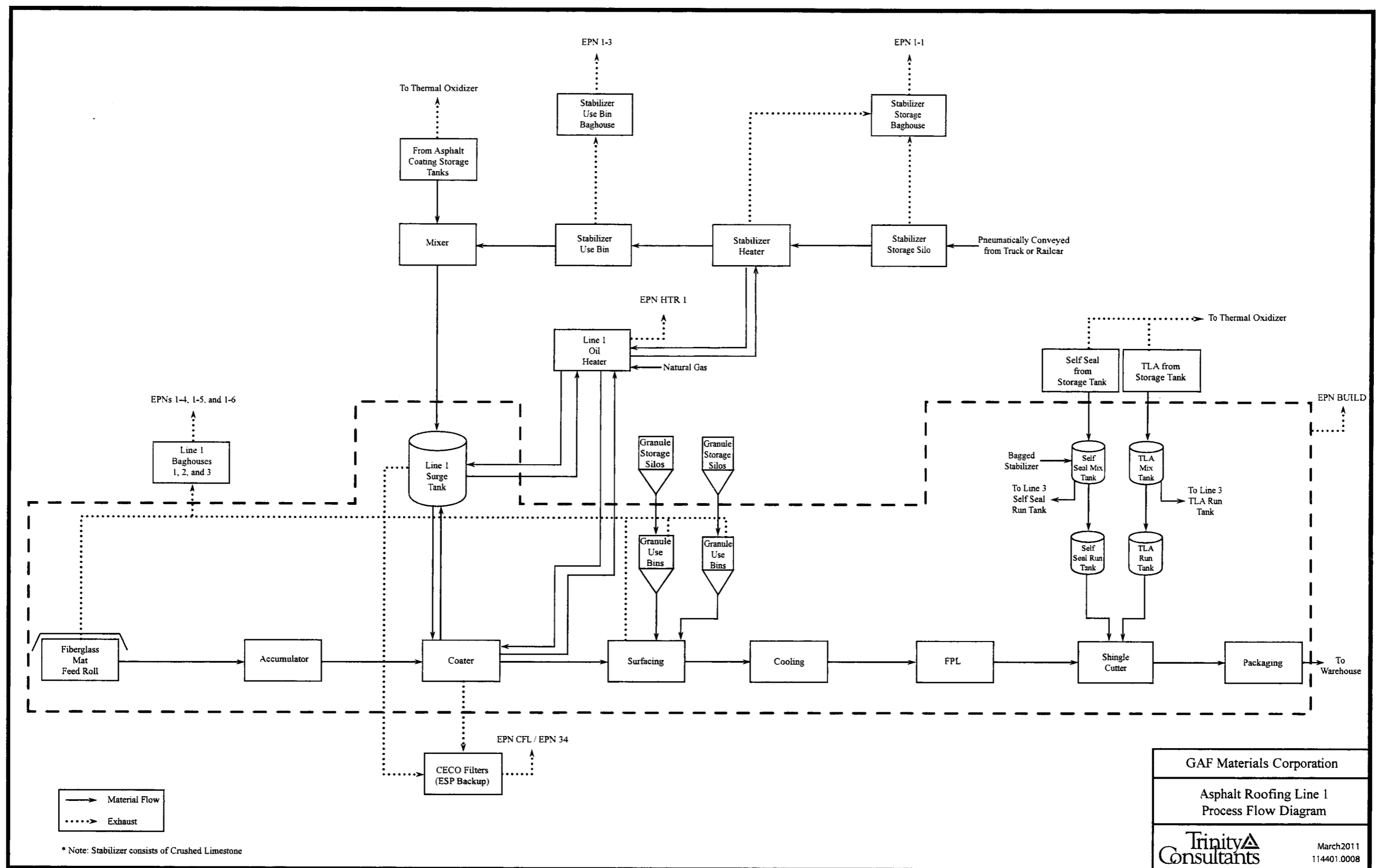
GAF is a nationwide manufacturer of building material products. The GAF Dallas Plant manufactures asphalt shingles for the roofing industry.

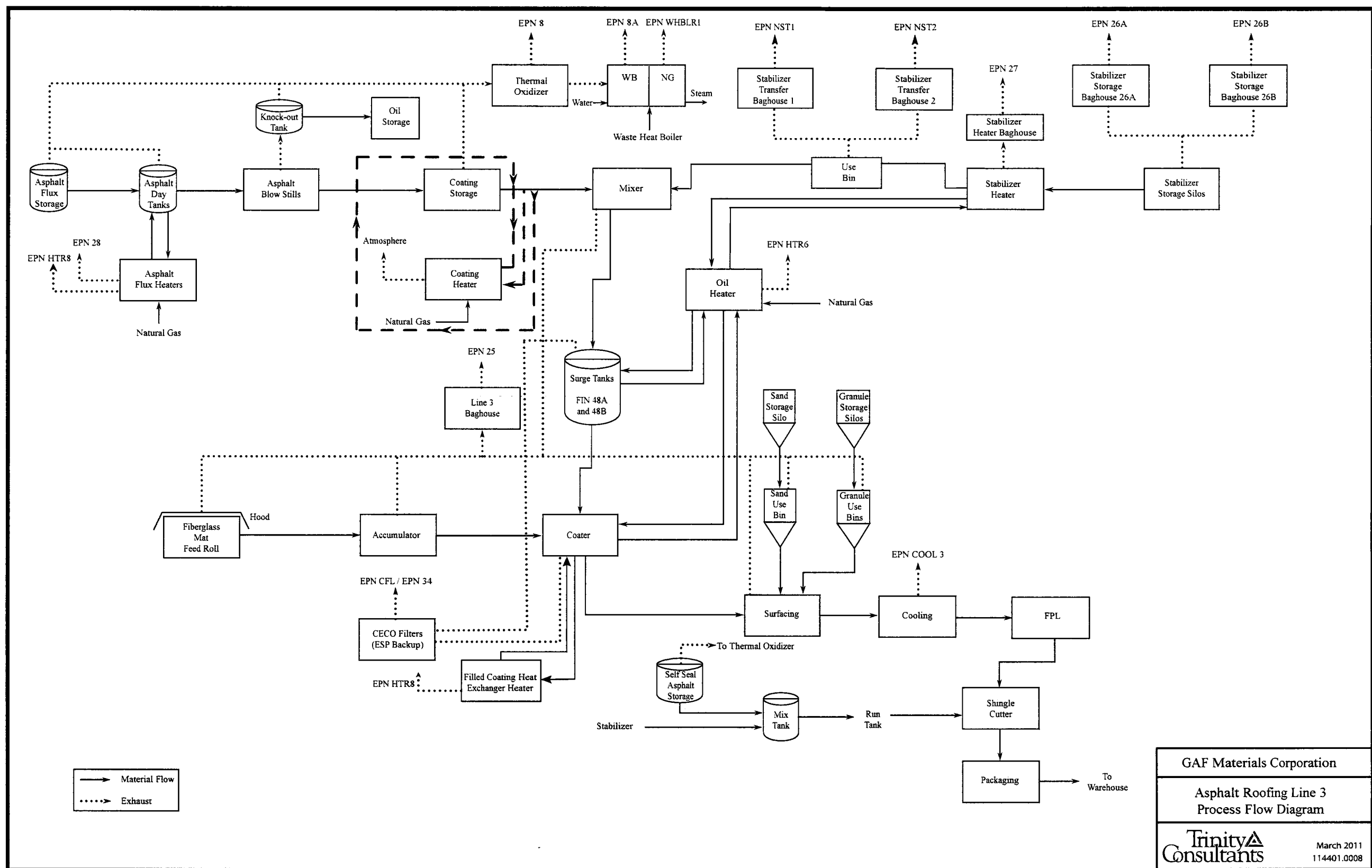
The Dallas Plant currently operates the Standby Boiler (EPN BLR5) for back-up purposes. The Standby Boiler is used when the Thermal Oxidizer (EPN 8A) and the Waste Heat Boiler (EPN WHBLR1) units are shut down. A permit alternation was submitted in December 2011 to permit BLR5 to operate at 8 million British thermal unit per hour (MMBtu/hr) and limited to 2,280 annual hours of operation, when the Waste Heat Boiler was down due to repairs. In order to accommodate for future repairs and breakdowns as well as be able to generate additional steam when needed, GAF proposes to replace the burner associated with the Standby Boiler with a 19 MMBtu/hr burner. GAF also proposes to increase the hours of operation, so the boiler is proposed to be permitted to operate continuously.

For detailed manufacturing processes for the GAF Dallas Plant, please refer to the application dated on December 18, 2008.

7. PROCESS FLOW DIAGRAMS

Process flow diagrams for Line 1 and Line 3 are included in this section. The proposed project does not result in any changes to the processes at GAF Dallas Plant.





8. EMISSIONS CALCULATION

The new burner will be equipped with a low NO_x-burner. As a natural gas combustion source (BLR5), emission factors from AP-42, Section 1.4 *Natural Gas Combustion* for small boilers (<100 million British thermal units per hour [MMBtu/hr]) are used to quantify hourly emissions of PM/PM₁₀/PM_{2.5}, SO₂, CO, and non-methane volatile organic compounds (VOC).² Since BLR 5 will be equipped with a low NO_x-burner, a lower NO_x emission factor of 30 ppm guaranteed by the burner manufacturer (i.e. 0.039 lb/MMBtu) is used in NO_x emissions calculation. Annual emissions for EPN BLR5 are based on 8,760 hours of operation. Detailed emission calculations are presented in Appendix B of this application.

² U.S. EPA, Office of Air and Radiation and Office of Air Quality Planning and Standards, *Compilation of Air Pollution Emission Factors, Volume I: Stationary Point and Area Sources*, Research Triangle Park, North Carolina, EPA 450/2-78-027R, July 1998, Section 1.4.

9. TCEQ TABLE 1(A)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Table 1(a) Emission Point Summary

Date	9/4/2012	Permit No.:	7711A	Regulated Entity No.:	100788959
Area Name:	GAF Materials Corporation, Dallas Facility			Customer Reference No.:	602717464

Review of applications and issuance of permits will be expedited by supplying all necessary information requested on this table

AIR CONTAMINANT DATA					
1. Emission Point			2. Component of Air Contaminant Name	3. Air Contaminant Emission Rate	
(A) EPN	(B) FIN	(C) NAME		Pounds per Hour (A)	TPY (B)
HTR3	HTR3	T-1 Laminating Adhesive Bulk Storage Tank Heater Vent	NO _x	0.05	0.22
			SO ₂	0.01	0.01
			PM ₁₀	0.01	0.02
			CO	0.04	0.18
			VOC	0.01	0.01
HTR4	HTR4	T-2 Laminating Adhesive Bulk Storage Tank Heater Vent	NO _x	0.05	0.22
			SO ₂	0.01	0.01
			PM ₁₀	0.01	0.02
			CO	0.04	0.18
			VOC	0.01	0.01
HTR5	HTR5	Asphalt Heater for T-14 and T-15 coating Asphalt Storage and Coating Feed Loop	NO _x	0.82	3.59
			SO ₂	0.01	0.04
			PM ₁₀	0.16	0.70
			CO	1.73	7.58
			VOC	0.11	0.48
BLR5	BLR5	Boiler Vent	NO _x	3.73	0.90
			SO ₂	0.02	<0.01
			PM ₁₀	0.28	0.07
			CO	3.13	0.75
			VOC	0.20	0.05

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Table 1(a) Emission Point Summary

Date	9/4/2012	Permit No.:	7711A	Regulated Entity No.:	100788959
Area Name:	GAF Materials Corporation, Dallas Facility			Customer Reference No.:	602717464

Review of applications and issuance of permits will be expedited by supplying all necessary information requested on this table

AIR CONTAMINANT DATA					
1. Emission Point			2. Component of Air Contaminant Name	3. Air Contaminant Emission Rate	
(A) EPN	(B) FIN	(C) NAME		Pounds per Hour (A)	TPY (B)
8 8A	TO1 8A	Thermal Oxidizer Exhaust Stack	NO _x	1.90	8.31
		Thermal Oxidizer Exhaust thru Waste Heat Boiler Stack	SO ₂	29.35	128.55
			PM ₁₀	2.62	11.46
			CO	11.34	49.65
			VOC	0.09	0.37
WHBLR 1	WHBLR 1	Waste Heat Recovery Boiler Natural Gas Burner Side	NO _x	0.47	2.06
			SO ₂	0.01	0.04
			PM ₁₀	0.11	0.48
			CO	1.24	5.43
			VOC	0.08	0.35
CFL	CFL	Coalescing Filter Mist Elimination Systems (to control emissions from the Line 1 and Line 3 Asphalt Coaters) with ESP as backup	PM ₁₀	0.63	2.76
			VOC	5.76	25.23
1-1	1-1	Line 1 Stabilizer Storage and Heater Baghouse Stk	PM ₁₀	0.23	1.01
1-3	1-3	Line 1 Stabilizer Use Bin Baghouse Stack	PM ₁₀	0.03	0.13

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Table 1(a) Emission Point Summary

Date	9/4/2012	Permit No.:	7711A	Regulated Entity No.:	100788959
Area Name:	GAF Materials Corporation, Dallas Facility			Customer Reference No.:	602717464

Review of applications and issuance of permits will be expedited by supplying all necessary information requested on this table

AIR CONTAMINANT DATA					
1. Emission Point			2. Component of Air Contaminant Name	3. Air Contaminant Emission Rate	
(A) EPN	(B) FIN	(C) NAME		Pounds per Hour (A)	TPY (B)
1-4	1-4	Line 1 Surfacing Section Dust Collector No. 1 Stack	PM ₁₀	0.59	2.58
1-5	1-5	Line 1 Surfacing Section Dust Collector No. 2 Stack	PM ₁₀	0.59	2.58
1-6	1-6	Line 1 Surfacing Section Dust Collector No. 3 Stack	PM ₁₀	0.59	2.58
COOL1 (total 3 stks)	COOL1 (total 3 stks)	Line 1 Cooling Section	PM ₁₀	8.52	37.30
			VOC	1.65	7.23
25	25	Sand Application Baghouse	PM ₁₀	1.50	6.57
26A	26A	Stabilizer Storage Baghouse A	PM ₁₀	0.15	0.70
26B	26B	Stabilizer Storage Baghouse B	PM ₁₀	0.29	1.26
27	27	Stabilizer Heater Baghouse	PM ₁₀	0.09	0.40
28	28	Asphalt Heater	NO _x	0.59	2.60
			SO ₂	0.004	0.02
			PM ₁₀	0.04	0.20
			CO	0.50	2.20
			VOC	0.03	0.10
FUG1	FUG1	Plantwide Fugitive Emissions	PM ₁₀	0.91	3.97
			VOC	0.43	1.88

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Table 1(a) Emission Point Summary

Date	9/4/2012	Permit No.:	7711A	Regulated Entity No.:	100788959
Area Name:	GAF Materials Corporation, Dallas Facility			Customer Reference No.:	602717464

Review of applications and issuance of permits will be expedited by supplying all necessary information requested on this table

AIR CONTAMINANT DATA					
1. Emission Point			2. Component of Air Contaminant Name	3. Air Contaminant Emission Rate	
(A) EPN	(B) FIN	(C) NAME		Pounds per Hour (A)	TPY (B)
COOL3 (total 3 stks)	COOL3 (total 3 stks)	Line 3 Cooling Section	PM ₁₀	6.74	29.52
			VOC	2.76	12.09
HTR6	HTR6	Line 3 Stabilizer Thermal Fluid Heater Vent	NO _x	0.60	2.58
			SO ₂	0.01	0.02
			PM ₁₀	0.05	0.20
			CO	0.49	2.16
			VOC	0.03	0.14

EPN = Emission Point Number

FIN = Facility Identification Number

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Table 1(a) Emission Point Summary

Date	9/4/2012	Permit No.:	7711A	Regulated Entity No.:	100788959
Area Name:	GAF Materials Corporation, Dallas Facility			Customer Reference No.:	602717464

Review of applications and issuance of permits will be expedited by supplying all necessary information requested on this table

AIR CONTAMINANT DATA			EMISSION POINT DISCHARGE PARAMETERS										
1. Emission Point			4. UTM Coordinates of Emission Point			5. Building Height (Feet)	6. Height Above Ground (Feet)	7. Stack Exit Data			8. Fugitives		
(A) EPN	(B) FIN	(C) NAME	Zone	East (Meters)	North (Meters)			(A) Diameter (Feet)	(B) Velocity (fps)	(C) Temperature (°F)	(A) Length (F)	(B) Width (Ft)	(C) Axis Degrees
HTR3	HTR3	T-1 Laminating Adhesive Bulk Storage Tank Heater Vent	14	700,204	3,628,338		22.04	1.00	18.00	200			
HTR4	HTR4	T-2 Laminating Adhesive Bulk Storage Tank Heater Vent	14	700,204	3,628,334		22.04	1.00	18.00	200			
HTR5	HTR5	Asphalt Heater for T-14 and T-15 coating Asphalt Storage and Coating Feed Loop	14	700,217	3,628,331		29.68	2.00	30.00	570			
BLR5	BLR5	Boiler Vent	14	700,217	3,628,372		40	1.97	18.25	444			
8	TO1	Thermal Oxidizer Exhaust Stack	14	700,217	3,628,363		36.99	2.03	182.24	1460			
8A	8A	Thermal Oxidizer Exhaust thru Waste Heat Boiler Stack	14	700,218	3,628,365		35.87	3.94	48.38	583			
WHBLR 1	WHBLR 1	Waste Heat Recovery Boiler Natural Gas Burner Side	14	700,218	3,628,366		36	2.00	14.73	410			
CFL	CFL	Coalescing Filter Mist Elimination Systems (to control emissions from the Line 1 and Line 3 Asphalt Coaters) with ESP as backup	14	700,178	3,628,333		40.77	2.40	32.14	103			
1-1	1-1	Line 1 Stabilizer Storage and Heater Baghouse Stk	14	700,151	3,628,387		44.1	0.80	92.00	96			
1-3	1-3	Line 1 Stabilizer Use Bin Baghouse Stack	14	700,157	3,628,355		43.96	0.84	92.00	200			
1-4	1-4	Line 1 Surfacing Section Dust Collector No. 1 Stack	14	700,121	3,628,341		23.53	2.21	123.00	76			
1-5	1-5	Line 1 Surfacing Section Dust Collector No. 2 Stack	14	700,125	3,628,341		23.53	2.21	92.00	76			
1-6	1-6	Line 1 Surfacing Section Dust Collector No. 3 Stack	14	700,128	3,628,341		23.53	2.21	123.00	76			
COOL1 (total 3 stks)	COOL1 (total 3 stks)	Line 1 Cooling Section	14	700,143	3,628,349		64.27	5.00	32.00	84			
25	25	Sand Application Baghouse	14	700,190	3,628,305		61.23	3.90	65.00	100			
26A	26A	Stabilizer Storage Baghouse A	14	700,214	3,628,310		73.35	0.65	59.00	Ambient			
26B	26B	Stabilizer Storage Baghouse B	14	700,221	3,628,309		73.35	0.65	59.00	Ambient			
27	27	Stabilizer Heater Baghouse	14	700,190	3,628,315		37.08	1.32	35.00	200			
28	28	Asphalt Heater	14	700,242	3,628,344		68.63	2.00	30.00	700			
FUG1	FUG1	Plantwide Fugitive Emission:	14	700,160	3,628,400		--	--	--	--	1048.56	800.52	--
COOL3 (total 3 stks)	COOL3 (total 3 stks)	Line 3 Cooling Section	14	700,180	3,628,310		73	5.00	32.00	84			
HTR6	HTR6	Line 3 Stabilizer Thermal Fluid Heater Vent	14	700,152	3,628,368		39.13	3.00	30.00	700			

EPN = Emission Point Number

FIN = Facility Identification Number

TCEQ-10153 [Revised 04/08] Table 1(a)

This form is for use by sources subject to air quality permit requirements and may be revised periodically. [APDG 5178 v5]

10. GENERAL REQUIREMENTS

This section provides a summary of the applicable State requirements outlined in 30 TAC §116.111 (effective October 7, 2010).

10.1. FORM PI-1 GENERAL APPLICATION (30 TAC §116.111(a)(1))

A completed Form PI-1 General Application signed by an authorized representative of GAF as well as all additional support information specified on the form are provided along with this application.

10.2. PROTECTION OF PUBLIC HEALTH AND WELFARE (30 TAC §116.111(a)(2)(A)(i))

Emissions from the Dallas Plant will comply with all rules and regulations of the commission and with the intent of the Texas Clean Air Act (TCAA) as described below.

10.2.1. General Air Quality Rules (30 TAC 101)

The Dallas Plant will be operated in accordance with the General Rules provided in 30 TAC Chapter 101.

10.2.2. Control of Air Pollution from Visible Emissions and Particulate Matter (30 TAC Chapter 111)

Visible emissions and particulate matter emissions from the Standby Boiler will comply with all applicable sections of 30 TAC Chapter 111. 30 TAC Chapter 111 contains PM limits for non-agricultural sources in 30 TAC §111.151. The Dallas Plant will comply with all applicable requirements set forth in this section.

10.2.3. Control of Air Pollution from Sulfur Compounds (30 TAC Chapter 112)

Sulfur dioxide emissions from the Standby Boiler is subject to the net ground level concentration limits in 30 TAC §112.3. The Dallas Plant will submit atmospheric dispersion modeling results to demonstrate compliance with these requirements under separate cover at TCEQ's request.

10.2.4. Standards of Performance for Hazardous Air Pollutants and For Designated Facilities and Pollutants (30 TAC Chapter 113)

The Standby Boiler is not subject to any of the requirements in 30 TAC Chapter 113.

10.2.5. Control of Air Pollution from Motor Vehicles (30 TAC Chapter 114)

The provisions in 30 TAC Chapter 114 regulate emissions from motor vehicles and are not intended for industrial emissions to the atmosphere. Therefore, this regulation does not apply to the Dallas Plant.

10.2.6. Control of Air Pollution from Volatile Organic Compounds (30 TAC Chapter 115)

The Dallas Plant is located in Dallas county, which is an applicable area as defined in §115.10 of this section. However, the requirements of 30 TAC Chapter 115 do not apply to the Standby Boiler.

10.2.7. Control of Air Pollution by Permits for New Construction or Modification (30 TAC Chapter 116)

This permit amendment application has been submitted to the TCEQ to demonstrate compliance with the applicable provisions of 30 TAC Chapter 116.

10.2.8. Control of Air Pollution from Nitrogen Compounds (30 TAC Chapter 117)

The 30 TAC Chapter 117 provisions for major commercial, institutional, and industrial sources are applicable to existing major stationary sources of NO_x located in ozone non-attainment areas in Texas. The Dallas Plant is located in Dallas County, an area designated as serious non-attainment for ozone by the U.S. EPA. The Dallas Plant is not a major source of NO_x, and does not operate any stationary, reciprocating internal combustion engines per §117.2100. Therefore, the provisions of 30 TAC Chapter 117 does not apply to the Dallas Plant.

10.2.9. Control of Air Pollution Episodes (30 TAC Chapter 118)

The Dallas Plant will comply with the rules relating to generalized and localized air pollution episodes. The facility is located in Dallas County, which is not a designated county under 30 TAC §118.5; therefore, no emissions reduction plan is required.

10.2.10. Federal Operating Permits (30 TAC Chapter 122)

GAF operates under Title V Operating Permit Number O-2771 issued on January 20, 2012. The facility will continue to comply with all applicable provisions of 30 TAC Chapter §122. In addition, GAF will follow all procedures of 30 TAC Chapter §122.210 to revise its SOP.

10.3. PROTECTION OF PUBLIC HEALTH AND WELFARE (30 TAC §116.111(a)(2)(A)(ii))

There are several schools located within 3,000 feet of the Dallas Plant. GAF will provide air dispersion modeling under separate cover at TCEQ's request demonstrating that no adverse short-term or long-term impacts will result at the locations of the schools.

10.4. MEASUREMENT OF EMISSIONS (30 TAC 116.111(a)(2)(B))

GAF will make necessary provisions for measuring the emissions of significant air contaminants from the Standby Boiler to demonstrate ongoing compliance with permit limitations if required by the Executive Director. GAF understands that enforceable permit provisions will be based on measures, which will provide for adequate demonstration of continuous compliance.

10.5. BEST AVAILABLE CONTROL TECHNOLOGY (30 TAC 116.111(a)(2)(C))

The following section of this permit application demonstrates that the facilities comply with BACT.

10.6. NEW SOURCE PERFORMANCE STANDARDS (30 TAC 116.111(a)(2)(D))

BLR 5 is subject to the requirements of New Source Performance Standards (NSPS) Subpart Dc- Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. The Dallas Plant will continue to comply with the recordkeeping and reporting requirements of this regulation.

10.7. NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS (30 TAC 116.111(a)(2)(E) AND (F))

The Dallas Plant is not a major source for hazardous air pollutants (HAP) emissions, and the Standby Boiler is not subject to any NESHAPs in the 40 CFR Part 61 and 40 CFR Part 63.

10.8. PERFORMANCE DEMONSTRATION (30 TAC 116.111(a)(2)(G))

The Dallas Plant will submit additional engineering data or perform ambient monitoring or stack testing if required by the TCEQ to confirm performance as represented in the permit application. Dispersion modeling will be submitted under a separate cover at TCEQ's request.

10.9. NONATTAINMENT REVIEW (30 TAC 116.111(a)(2)(H))

The GAF Dallas Plant is located in Dallas County, Texas, which is currently classified as a serious nonattainment area for the 8-hour ozone standard and is unclassified for all criteria pollutants. The Dallas Plant is currently an existing minor source with regards to Nonattainment New Source Review (NNSR). As shown in the emission calculations in Appendix B, the emission increases of VOC and NO_x are below major source thresholds for NNSR. Therefore, NNSR does not apply to this application.

10.10. PREVENTION OF SIGNIFICANT DETERIORATION REVIEW (30 TAC 116.111(a)(2)(I))

The Dallas Plant is currently an existing minor source with regards to Prevention of Significant Deterioration (PSD) review. As shown in the emission calculations presented in Appendix B, the proposed increase in emissions of pollutants for which the area is in attainment or unclassified are below major source thresholds for PSD review. Therefore this requirement does not apply.

10.11. AIR DISPERSION MODELING (30 TAC 116.111(a)(2)(J))

The Dallas Plant will provide air dispersion modeling documentation upon the request of the Executive Director of the TCEQ.

10.12. HAZARDOUS AIR POLLUTANTS (30 TAC 116.111(a)(2)(K))

This regulation applies to new major and reconstructed HAP sources for which a MACT standard has not been promulgated at the time of construction or reconstruction. The Dallas Plant is not a new major or

reconstructed HAP source as a result of this permit amendment application. Therefore, this rule does not apply.

10.13. MASS CAP AND TRADE ALLOWANCES (30 TAC 116.111(a)(2)(L))

The Dallas Plant is not located in the Houston/Galveston ozone nonattainment area. Therefore, the provisions of this regulation do not apply.

10.14. NOTICE REQUIREMENTS (30 TAC 116.111(b))

The emission increases will be below the Public Notice thresholds. Therefore, the application is not subject to Public Notice requirements.

11. BEST AVAILABLE CONTROL TECHNOLOGY

The requirements set forth in 30 TAC Chapter 116 [30 TAC §116.111(a)(2)(C)] specify that to be granted a permit or a permit amendment to “construct” or “modify” a facility, the “Best available control technology (BACT)” must be evaluated for and applied to all facilities subject to the TCAA.” This section of the permit application evaluates the Best Available Control Technology (BACT) for all the equipment affected by this permit amendment application as set forth in 30 TAC §116.111(a)(2)(C).

The proposed project will include a Standby Boiler (EPN BLR5) with a maximum heat input rate of 19 MMBtu/hr. The TCEQ current BACT guidelines only specify control technologies and emission limits for boiler that has a heat input rate that is greater than 40 MMBtu/hr. Therefore, the low NO_x burners that will be installed on the Standby Boiler are selected as BACT.

APPENDIX A - TCEQ TABLE 2 AND TABLE 6

TCEQ TABLE 2, MATERIAL BALANCE

Table 2 is not required since there is no change to the materials input/output information since last permit renewal. Therefore, please refer to the permit renewal application for Table 2.

TCEQ TABLE 6, BOILERS AND HEATERS

TABLE 6
BOILERS AND HEATERS

Type of Device: Boiler		Manufacturer: TBD			
Number from flow diagram: EPN BLR5		Model Number: TBD			
CHARACTERISTICS OF INPUT					
Type Fuel	Chemical Composition (% by Weight)	Inlet Air Temp °F (after preheat)	Fuel Flow Rate (scfm* or lb/hr)		
Natural Gas			Average	Design Maximum	
		Gross Heating Value of Fuel	Total Air Supplied and Excess Air		
		(specify units) 1012 Btu/cu.ft.	Average _____ scfm* _____ % excess (vol)	Design Maximum _____ scfm * _____ % excess (vol)	
HEAT TRANSFER MEDIUM					
Type Transfer Medium	Temperature °F		Pressure (psia)		Flow Rate (specify units)
(Water, oil, etc.)	Input	Output	Input	Output	Average
Water					
OPERATING CHARACTERISTICS					
Ave. Fire Box Temp. at max. firing rate	Fire Box Volume(ft. ³), (from drawing)		Gas Velocity in Fire Box (ft/sec) at max firing rate		Residence Time in Fire Box at max firing rate (sec)
STACK PARAMETERS					
Stack Diameters	Stack Height	Stack Gas Velocity (ft/sec)		Stack Gas	Exhaust
1.97 ft	40 ft	(@Ave.Fuel Flow Rate)	(@Max. Fuel Flow Rate)	Temp °F	scfm
			18.25	444	1946
CHARACTERISTICS OF OUTPUT					
Material	Chemical Composition of Exit Gas Released (% by Volume)				
	Natural Gas combustion emissions				
Attach an explanation on how temperature, air flow rate, excess air or other operating variables are controlled.					

Also supply an assembly drawing, dimensioned and to scale, in plan, elevation, and as many sections as are needed to show clearly the operation of the combustion unit. Show interior dimensions and features of the equipment necessary to calculate in performance.

*Standard Conditions: 70°F, 14.7 psia

APPENDIX B - EMISSION CALCULATIONS SPREADSHEETS

Emission Calculations for Boiler Vent (EPN: BLR5)

Natural Gas Combustion Emission Factors

Reference for Emission Factors	Fuel	Units	CO	NO _x	PM/PM ₁₀ /PM _{2.5}	SO ₂	VOC
AP-42, Sec. 1.4, Table 1.4-1 (7/98), Table 1.4-2 (7/98)	Natural Gas (Boilers < 100 MMBtu/hr) Uncontrolled	lb/MMscf ¹ lb/MMBtu ²	83.34 0.0824	99.21569 0.0980	7.54 0.0075	0.60 0.0006	5.46 0.0054

¹ AP-42 emission factors converted to the Dallas Facility heating value by multiplying the given emission factor by the ratio of the facility heating value to the average heating value (1,012/1,020).

² Emission factors converted from MMscf to MMBtu, based on the facility heating value of 1,012 Btu/scf.

Low NO_x Emission Factor

NO _x EF ³ (ppm)	% Oxygen (%)	Molar Volume (dscf/mol)	Fd ⁴ (dscf/MMBtu)	MW ⁵ (lb/mol)	NO _x EF ⁶ (lb/MMBtu)
30	3	359	8,710	46.01	0.039

³ Low NO_x emission factor of 30 ppm taken from burner manufacturer, provided by Durwin Farlough (GAF) to Latha Kambham (Trinity) via email on April 23, 2012.

⁴ Fd obtained from 40 CFR 60, Appendix A-7, Method 19, Table 19-2 for Natural Gas.

⁵ NO_x emission factor in lb/MMBtu:

$$\text{Emission Factor (lb/MMBtu)} = \frac{30 \text{ ppm}}{(20.9 - 3)} \times \frac{46.01 \text{ lb}}{\text{mol}} \times \frac{8710 \text{ dscf}}{\text{mol}} \times \frac{\text{mol}}{359 \text{ dscf}} = 0.039 \text{ lb/MMBtu}$$

Currently Permitted and Proposed Hourly and Annual Emissions for the Standby Boiler Vent (EPN: BLR5)

Scenario	FIN	EPN	Source Name	Heat Input Rate ^{6,7} (MMBtu/hr)	Annual Hours of Operation ^{6,7} (hr/yr)	Maximum Hourly Emissions (lb/hr)					Annual Emissions (tpy)				
						CO	NO _x	PM/PM ₁₀ /PM _{2.5}	SO ₂	VOC	CO	NO _x	PM/PM ₁₀ /PM _{2.5}	SO ₂	VOC
Currently Permitted ⁶	BLR5	BLR5	Standby Boiler Vent	8.00	2,280	0.66	0.78	0.06	<0.01	0.04	0.75	0.89	0.07	<0.01	0.05
Permanent Boiler Change ⁷	BLR5	BLR5	Boiler Vent	21.00	8,760	1.73	0.82	0.16	0.01	0.11	7.58	3.59	0.70	0.04	0.48

⁶ The Standby Boiler (EPN BLR5) is currently permitted under NSR Permit No. 7711A with a permit alteration approved on January 20, 2012 with a fuel consumption limitation of 18.02 MMscf/yr which equates to an 8.0 MMBtu/hr heat input over 2,280 hr/yr.

⁷ The Permanent Boiler will be the same unit as the Standby Boiler that is currently permitted, however GAF is proposing to change the burner on the boiler from a maximum heat input of 19 MMBtu/hr to 21 MMBtu/hr with 8,760 hours of

Sample Emission Calculation for CO:

$$\text{CO Emission Rate (lb/hr)} = \frac{0.0824 \text{ lb}}{1 \text{ MMBtu}} \times \frac{21 \text{ MMBtu}}{1 \text{ hr}} = 1.73$$

$$\text{CO Emission Rate (tpy)} = \frac{1.73 \text{ lb}}{1 \text{ hr}} \times \frac{8,760 \text{ hr}}{1 \text{ year}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}} = 7.58$$

Net Change in Potential Emissions

	Annual Emissions (tpy)				
	CO	NO _x	PM/PM ₁₀ /PM _{2.5}	SO ₂	VOC
Net Change in Potential Emissions:	6.83	2.70	0.63	0.04	0.43
PSD Major Source Threshold:	250	--	250	250	--
NNSR Major Source Threshold: ¹	--	50	--	--	50
Increase Greater Than the PSD/NNSR Threshold?	No	No	No	No	No

¹ Dallas County was classified as a serious non-attainment area under the 8-hour ozone standard. In Dallas County, a major source is defined as a source which has the potential to emit greater than 50 tpy of VOC or NO_x.